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DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT—INDEPENDENT AGENCIES APPROPRIATIONS FOR 1976

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HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES

NINETY-FOURTH CONGRESS

FIRST SESSION

SUBCOMMITTEE ON HUD—INDEPENDENT AGENCIES

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PART 6

ENVIRONMENTAL PROTECTION AGENCY
TESTIMONY OF MEMBERS OF CONGRESS AND OTHER INTERESTED INDIVIDUALS AND ORGANIZATIONS

Printed for the use of the Committee on Appropriations

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DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT—INDEPENDENT AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1976

MAY 6, 1975.

ENVIRONMENTAL PROTECTION AGENCY

WITNESSES

HON. RUSSELL E. TRAIN, ADMINISTRATOR
JOHN R. QUARLES, DEPUTY ADMINISTRATOR
DR. WILSON K. TALLEY, ASSISTANT ADMINISTRATOR FOR RESEARCH AND DEVELOPMENT
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STEPHEN J. GAGE, ACTING DEPUTY ASSISTANT ADMINISTRATOR FOR ENERGY, MINERALS, AND INDUSTRY, OFFICE OF RESEARCH AND DEVELOPMENT

Mr. BOLAND. The committee will come to order.

This committee is delighted to welcome this morning the Environmental Protection Agency and Mr. Russell E. Train, the Adminis-

trator. This is your first appearance before this subcommittee, although you did appear when you were with the CEQ.

I think you were the first Chairman, were you not?

Mr. TRAIN. That is correct, sir.

Mr. BOLAND. We welcome you to these plush surroundings. We do not have this kind of decor in our subcommittee room. I am happy to tell you that we will be back in the rather folksy and close atmosphere of our own subcommittee room tomorrow. The reason we use this room today is because this is an agency, of course, in which there is a great deal of public interest and consequently we wanted to be sure that people who are interested in the different programs of the EPA would have an opportunity to set in here in comfort.

This year you are asking for $742,800,000 in budget authority as compared to $695,995,000 last year, and $518,944,000 the year before. The difference is an increase of $46,805,000.

Your employment in 1974 was 9,203, and it is the same in 1975. In 1976, you are requesting 9,300, an increase of 97.

EPA was established as an independent agency of the Executive Branch in December 1970. It was formed by combining 15 components of various departments and independent agencies. Its principal responsibilities include water quality, air, water supply, solid waste, radiation, noise, pesticides, and toxic substances.

With the recent Supreme Court decision, the full $18 billion authorized for waste treatment is now available. I understand through the third quarter of fiscal year 1975 only $4.5 billion has been obligated.

This subcommittee, of course, is impressed with the broad program responsibilities of EPA. Your Agency touches nearly every aspect of the daily lives of practically all Americans. In today's economy, complicated by an energy crisis, EPA's actions can have widespread implications for our economic growth, employment and prices. So it is rather important that every decision, every action of EPA be weighed carefully.

As I have read the justifications and also the overview which has been supplied to the committee, I think you are doing precisely that. I know you share this concern, Mr. Train. I want to compliment you on the overview that you supplied to the committee on your legislative programs and authorization. I think it is very well done. I also want to compliment you on the structure of the budget justifications.

From time to time, other members will be coming in. There are some important meetings in other places on the Hill this morning. But we will have other members coming in. You now Mr. Talcott, the ranking minority member of the committee, and Mr. Roush, one of the valuable Members of the committee. Others will be coming in.

We would like to have you read your statement thoroughly so that all of the members will have an appreciation of what your problems are, how we are going to meet those problems, and how you will handle your programs in the next fiscal year.

You may proceed as you wish.

GENERAL STATEMENT

Mr. TRAIN. Thank you, Mr. Chairman and members of the subcommittee. I welcome the opportunity to be here today to discuss our

budget request for the coming fiscal year. This is my first appearance before this subcommittee, and I want to assure you that my colleagues and I are looking forward to working with you.

The President has requested $742.8 million and 9,300 positions for the fiscal year 1976 Environmental Protection Agency operating budget.

Before discussing the specifics of our fiscal year 1976 budget request, I would like to briefly review EPA's background and authorities with you. In this regard, I hope you will have the opportunity to read the overview of EPA's authorizing legislation, programs and organization which we prepared for the subcommittee.

EPA was created through executive reorganization plan No. 3 of 1970 for the purpose of consolidating certain Federal environmental activities into a single agency. EPA was thus formed by amalgamating components from the Interior Department, the Department of Health, Education, and Welfare, the Department of Agriculture, the Atomic Energy Commission, and the Federal Radiation Council. Subsequently, major new environmental legislation has been enacted, which coupled with the consolidation of existing activities, provides EPA a comprehensive framework for pollution abatement and control.

The Agency's authorities are contained in: The Clean Air Act; the Federal Water Pollution Control Act; the Marine Protection, Research and Sanctuaries Act; the Safe Drinking Water Act; the Solid Waste Disposal Act; the Federal Insecticide, Fungicide, and Rodenticide Act; and the Noise Control Act.

These various acts contain many specific requirements, authorizations and programs. In summary, however, they provide the basic authority: To develop scientific information for use in our standard setting, enforcement and other program activities; to establish national standards and regulations for pollution control; to provide grant and technical assistance to State and local governments for planning and implementing environmental requirements and programs; and to enforce standards and regulations in areas of primary Federal responsibility, and to provide stimulus and support for State enforcement efforts.

Clearly with the overall budget constraints, we cannot achieve everything envisaged under our authorities. However, by judicious use of resources, and with close cooperation from the States, I think we can achieve major statutory objectives that will bring about a high-quality environment. I believe that our fiscal year 1976 budget request represents a balance among the important environmental objectives set forth in our statutory authorities and other vital national concerns.

Our budget proposals emphasize the increasing importance of EPA's relationships with State and local governments. As environmental programs have matured, individual States have assumed increased responsibility for effective program implementation. We will expect the States to assume increasing responsibilities and share the workload. This budget also reflects an extensive effort to reprogram existing resources to meet our priority needs.

Let me now highlight the major program proposals and budget changes in key areas such as air, water quality, water supply, pesticides, energy and scientific activities overseas.

AIR

In fiscal year 1976, our budget request for implementation of the Clean Air Act is reduced by $16.8 million, from $154.0 million in 1975 to $137.2 million in 1976.

A major portion of the 1976 reduction in air programs is attributable to a $7.5 million decrease in budget authority requested for State control agency support. Although budget authority is decreased in 1976, the budget for State air control agency support will remain at a constant $51.5 million level in both 1975 and 1976. We can retain this constant level of funding through the use, in 1976, of $3.75 million in 1975 funds which were deferred. State control agency support is the basic means through which we are able to assist the States in carrying out the Federal air quality requirements.

The Clean Air Act relies on the achievement of primary and secondary national ambient air quality standards through the mechanism of State implementation plans (SIP's) by which State and local agencies set and enforce emission limitations for sources of pollution. We are encouraging maximum participation of State and local agencies in a number of activities including enforcement of State plans, and implementation of air quality maintenance programs. We realize, however, that State fiscal constraints will, to some degree, hinder their ability to adequately implement these programs.

The reduction in air programs in 1976 also reflects the completion of the capital-intensive equipment procurement and construction phases of several large-scale sulfur oxides control projects. This has allowed us to reduce the funding for our nonenergy related control technology research program by $8 million, from $17.5 million in 1975 to $9.5 million in 1976.

We will, however, continue the air pollution research and development efforts to increase our knowledge of health effects on which to base air quality criteria. We also plan to continue study of the potential health impact of catalytic-converter related emissions, especially sulfate emissions. In addition, we will be increasing our knowledge of the health and ecological effects of synergistic combinations of air pollutants such as ozone and nitrogen oxides.

Within the air program our most significant increase is $1.3 million and 40 positions for air enforcement. The increase will be used primarily to augment the vehicle certification program, permitting us to determine whether production vehicles conform to the standards. This will include a small mobile enforcement test system to check and augment assembly line testing done by the manufacturers. We will also implement a voluntary self-certification program for certain emission related aftermarket parts. This will alleviate the potentially anticompetitive impact of the recall and warranty provisions on the aftermarket parts industry.

WATER QUALITY

The fiscal year 1976 budget request for our water pollution control programs reflects an apparent increase of $29.1 million from $181.6 million in 1975 to $210.7 million in 1976. In addition, we expect to increase obligations of available contract authority for the construc-

tion grant program from $4.2 billion in 1975 to $5.6 billion in 1976.

The apparent increase for water quality programs results from the fact that we are requesting a direct appropriation in 1976 of $53 million for the section 208 areawide planning program. In 1975 this program was funded from $150 million in contract authority and, as such, is not reflected as a direct appropriation in our budget. The $53 million will provide funding for 66 additional areawide planning agencies, bringing the total of such agencies to 210. These planning agencies provide the means of comprehensively addressing both point and nonpoint water pollution problems within their geographic boundaries.

Our fiscal year 1976 budget request for budget authority for State water control agency grant support is decreased by $11.3 million, from $45.7 million in 1975 to $34.4 million in 1976. However, as in the case of the air control agency grants, we are planning to continue grant support of $40 million to State control agencies in 1975 and 1976. This will be achieved by using $5.7 million in 1975 funds which were deferred for this purpose. This minimal level of funding is essential if we are to continue our policy of maximizing the involvement of the States in implementing the Federal Water Pollution Control Act.

With the marked increase in our construction grants program obligations, an increase of $1.4 billion, we will have a massive increase in workload from 4,300 projects last fiscal year to over 8,500 projects in 1976. To meet this demand, we proposed to increase staffing through reprograming of 161 positions and $2.9 million. We also hope to significantly increase the delegation of program responsibilities to the States.

For water enforcement, our 1976 budget request reflects a $2.8 million reduction from $24.1 million in 1975 to $21.3 million in 1976. We are nearing completion of the initial issuance of National Pollutant Discharge Elimination System permits. The permits are the mechanism for imposing on dischargers the uniform national effluent limitations and national performance standards which EPA is required to promulgate. The permits are issued to industrial and municipal dischargers on the condition that their pollutant reductions be accomplished according to given time schedules.

We expect to have delegated the program to about 30 States by the end of fiscal year 1975. These States are picking up an increasingly large portion of the permit issuance workload and in many instances will do significant portions of the compliance monitoring and enforcement. Ninety-four percent of all major industrial discharge permits and 86 percent of the major municipal permits have been issued. And more significantly, all 6,300 major discharger permits will have been issued by the end of fiscal year 1975. The shifting program emphasis from permit issuance to compliance monitoring and enforcement has allowed us to reallocate $2.8 million and 146 positions out of this program.

For water quality research and development, we will concentrate in 1976 on developing new techniques for sludge disposal and on determining the potential health effects of land disposal of effluent and sludge produced by wastewater treatment. Our 1976 request coupled with increased funds provided by the Congress in 1975 will permit us to substantially increase our research efforts in these areas.

WATER SUPPLY

One of our most significant program developments in 1976 will be implementation of the recently enacted Safe Drinking Water Act which provides for the protection of drinking water supplies throughout the United States. In 1975 our budget contained only $7.8 million for this program. We are requesting an increase in 1976 of $24.5 million and 97 positions to implement the new legislation.

The Agency had been anticipating the passage of this measure, and we have already proposed interim national drinking water regulations which specify the standards required to protect the public health. The major portions of the increase in 1976 resources will be allocated as follows: $6.8 million for development of drinking water and underground injection regulations; $10 million for grant programs to help the States in developing and implementing their drinking water programs, including underground injection control; and $7.6 million for water supply research and development to support increased research on the health implications of suspected contaminants, to allow initiation of studies of their impact on groundwater supplies, and to permit expansion of the control technology program.

PESTICIDES

The budget proposes $44.3 million for 1976, an increase of $10.2 million over EPA's 1975 pesticides program.

The Federal Insecticide, Fungicide, and Rodenticide Act requires that all presently registered products, about 28,000 Federal and 15,000 State, be re-registered and classified for "general" or "restricted" use by October 21, 1976. By that date, all applicators of "restricted use" pesticides are to be certified by the States. Only certified applicators can apply "restricted" use pesticides after October 21, 1976. The bulk of the proposed increase will aid the States in developing and implementing their applicator certification and training programs for use of "restricted" pesticides. In this effort, we will be cooperating with the USDA Cooperative Extension Service to utilize its existing resources as much as possible to establish and conduct training courses. We estimate that over 2 million private and 100,000 commercial applicators could require some precertification training. The increase will also provide for some additional funding to assist in processing the reregistration and classification workload.

ENERGY

The EPA energy research and development program is integral to achieving the Nation's goal of greater energy self-sufficiency. With a total funding in 1975 and 1976 of $246 million, the energy program constitutes one of the Agency's major efforts. In 1976 we expect to fund three interrelated energy activities:

A processes and effects program to determine the environmental effects associated with energy extraction, transmission, conversion, and end use;

A control technology program to identify, develop, and demonstrate necessary pollution control techniques; and

A policy and implementation program to evaluate the environmental, economic, and social consequences of alternative strategies for pollution control of energy systems.

The underlying trust of our energy program is to provide adequate environmental protection as the Nation moves toward expanded use of domestic fuels. Emphasis will be placed on environmental problems associated with the following major areas: The extraction of coal, oil shale, oil, and natural gas and the reuse or proper disposal of wastes resulting from their extraction and processing; fossil fuel combustion; production and use of synthetic fuels; and advanced energy systems and conservation.

SCIENTIFIC ACTIVITIES OVERSEAS

We are requesting $6 million for the scientific activities overseas program, which supports cooperative environmental research projects in other countries utilizing excess foreign currencies held by the Treasury. No funds were appropriated for this activity in 1975. The request will permit continuation of the program supported in 1974 and prior years, and provide support for participation in a special Polish-American energy research program.

OTHER ACTIVITIES

In addition to the major program activities I have already discussed, I would like to just highlight other items of interest with respect to our 1976 budget:

For our noise program, we are asking for an increase in 1976 of $4.7 million to step up the development of new product noise emission standards and labeling regulations.

The solid waste budget reflects a $3.9 million decrease due to the $5 million added by the Congress for research and development in 1975 that we did not include in our budget this year.

The interdisciplinary research program includes an increase of $2 million for the operation of an inhalation toxicology facility at the National Center for Toxicological Research.

For our mangement and support activities, which cover program direction and administrative functions together with a wide variety of "overhead" costs, we are seeking an additional $14.2 million. The bulk of this increase will cover costs for items such as space rental, communications, utilities, building repairs and improvements, and centralized ADP services.

Finally, you will note that the President's budget also includes estimates for the July–September 1976 transition period totaling $174 million. These estimates for the most part provide for continuation of EPA programs through this period at the 1976 budget authority level.

In closing, I wish to restate my belief that in this year of fiscal constraints our budget represents a balance among our important environmental objectives and other national concerns.

Mr. Chairman, this concludes my statement. My colleagues and I will be happy to answer any questions that you or other members of the committee may have.

I might add that each of the Assistant Administrators has also prepared a statement for the subcommittee. With your permission, Mr. Chairman, we will provide them for the record at the conclusion of these hearings.

STATE PROGRAM GRANTS

Mr. BOLAND. Thank you very much, Mr. Train, for a very detailed and fine statement. On page 3 you indicate, "As environmental programs have matured, individual States have assumed increased responsibility for effective program implementation." Of course, without that kind of implementation this kind of program could not work.

Of the $742.8 million requested for 1976, how much of that is actually estimated to be allocated or granted to the individual States?

Mr. TRAIN. I think that is approximately $90 million not including the water supply program. That was an additional $10 million. So approximately $100 million is available to the States under this proposed budget for State control program grant assistance. This includes $9.4 million that will be available for this purpose from funds deferred from 1975.

Mr. BOLAND. $100 million in fiscal year 1976?

Mr. TRAIN. That is correct.

Mr. BOLAND. Is that an increase or decrease from the 1975 appropriation?

Mr. TRAIN. As far as the air and water program is concerned, it maintains a constant level of support. The $10 million for water supply program, I think better referred to as the drinking water program, is a new program grant. So that represents a $10 million increase over fiscal 1975.

CONTRACT AUTHORITY

Mr. BOLAND. With respect to water quality, on page 6, you have indicated that there is an apparent increase of $29.1 million from the $181.6 million in 1975 to $210 million in 1976. You say the apparent increase results from the fact that you are requesting a direct appropriation in 1976 of $53 million for the section 208 areawide planning program. You go on to say that in 1975 this program was funded from $150 million in contract authority. Why can't you continue to fund it with contract authority in 1976?

As I understand you are now asking for a direct appropriation of $53 million for the section 208 areawide planning program. Is that true?

Mr. TRAIN. That is correct, sir.

Mr. BOLAND. Last year you funded this program out of contract authority. Why aren't you doing this this year?

Mr. TRAIN. As I understand it, the Budget Reform Act requires that we seek a direct appropriation rather than utilization of this technique of contract authority.

Mr. BOLAND. You still have contract authority, do you not, within the agency?

Mr. TRAIN. I understand that it expires, Mr. Chairman.

CONSTRUCTION GRANTS STAFFING

Mr. BOLAND. On page 7 you talk about the marked increase in construction grants program obligations, an increase of $1.4 billion. There is no question about the fact that you will have a massive increase in workload because the number of projects in 1976 just about double, from 4,300 to 8,500. You are proposing to increase staffing through reprograming of 161 positions and $2.9 million. You also indicated in your statement where the reprograming is occurring. Will you tell us precisely where the 161 positions are coming from?

Mr. TRAIN. I believe essentially from the waste water discharge permit program.

As I indicated in my statement, the actual issuance of permits has been very substantially completed, certainly the major permits, and extensive delegations have been made to the States in this area.

We are now moving into a monitoring and enforcement phase where these responsibilities will, to a great extent, be in the States to which the program has been delegated, permitting us to reprogram a substantial number of individuals from that program primarily to the construction grants effort.

Mr. BOLAND. As you know, the Emergency Employment Appropriations Act of 1975, when it left the House, included an additional 200 positions and $350,000 to help in meeting the additional workload and other purposes involved in this program. We recognize the tremendous workload that is going to be imposed upon the Agency as a result of the speedup in this program.

The Senate reduced that figure to 100 and $175,000. They also directed OMB to release 100 positions authorized for this program in 1975. We agreed to this in conference.

Would that 200 positions be in addition to the reprograming of 161 positions that you envisage here?

Mr. TRAIN. Yes; very definitely.

Mr. BOLAND. All of the 97 positions, the new positions requested for fiscal 1976, as I listened to your statement, they are all going to be assigned to water supply, are they not?

Mr. TRAIN. That is correct, sir.

POLLUTION CONTROL STRATEGY

Mr. BOLAND. With respect to overall pollution control strategy, it has been said in some quarters that EPA does not have any overall grand strategy for pollution control. For example, efforts are made to control automobile air pollution with possibly inadequate consideration of the effects of these actions on water pollution problems. For example, scrubbing sulphur dioxide from powerplant gases could produce large quantities of sludge so that pollutants entering one of the media, in the case of air, could become pollutants in other media, such as water supply.

What about the problem? Is there a problem here? Does the EPA really have a grand strategy for pollution control?

Mr. TRAIN. There very definitely is a problem, Mr. Chairman. In dealing with pollution problems it is inevitably important to consider the cross-media implications of the problems and the solutions. I think that the sludge problem is a very good case in point.

Sludge is produced as a byproduct of the municipal waste treatment programs. Sludge is also produced as a byproduct of at least some of the flue gas desulfurization technologies, stack gas scrubbers. If not properly controlled and disposed of, or otherwise utilized, these sludges can contribute to other environmental problems.

If they are disposed of in the waterways or landfills which are permitted to leak into waterways they can add to water pollution problems.

If the sludge is incinerated, as has been one of the proposed solutions to the local Blue Plains Sewage Treatment Plant sludge problem, this adds to air pollution problems. So that it is important to take a cross-media cut at matters of this sort.

We have an intra-agency task force that seeks to address all of the problems in a comprehensive and integrated fashion that the sludge issue represents.

This is just one example. There are a great many others, obviously.

The problems are probably becoming more significant as we move along in our environmental programs because, progressively, options are being narrowed for disposal. For example, ocean dumping is now under a rigorous permit system administered by EPA. This option is increasingly not available both to industries and to municipalities for the disposal of various wastes, including the sludge I just mentioned. So the importance of taking a comprehensive, across-the-board view of all of our problems is increasing all the time. Now you asked whether we have a grand strategy.

ENVIRONMENTAL QUALITY

Mr. BOLAND. How do you define environmental quality?

Mr. TRAIN. I try to avoid doing it whenever I can. I don't really know, Mr. Chairman, that it is susceptible to a fully acceptable definition. Your definition might well differ from mine and I think there are subjective elements that enter into the problem.

I think a very important element of environmental quality, as we look at all of our programs, is the health ingredient, the protection of public health. I think that is probably the easiest and simplest ingredient for us all to understand and accept. Environmental programs should have, as one of their objectives and probably their highest priority objective, the protection of public health.

I think from that I would say that a high level of public health is surely a very important ingredient of environmental quality. There are other ingredients of environmental quality beyond the specific health element. The environmental health of the natural systems upon which all life depends is another ingredient. On this base agriculture depends, most economic activity, commerce, fisheries, as a very obvious example, and things of this sort. So that the continued healthy operation of the natural ecosystem, if I can use the phrase, is another exceedingly important element in our definition of environmental quality.

Beyond that, one moves into the area of esthetics to some extent. There is a value in a clean river to look at and a blue sky to look at from the esthetic standpoint, aside from public health criteria. These values are exceedingly hard to quantify and here, I think, is the area where values tend to differ amongst the persons doing the defining because subjective values are very much involved. These are some. One could expand on this and talk about the importance of maintaining diversity and freedom of choice amongst a wide variety of alternatives in all areas of public life.

In the environment I think this is a particularly important ingredient to this somewhat nebulous thing called environmental quality.

Mr. McDade. Would you yield?

Mr. Boland. Yes.

ECONOMIC IMPACTS

Mr. McDade. That is a very helpful sequence you went through in trying to respond to the Chairman's questions. What about issues such as economic impact? You did not mention those. It seems, at least in the public eye, some people increasingly begin to equate environmental quality with a constraint on the economy. You hear all sorts of people make this allegation. What do you do when you attempt to define the objectives that you seek in balancing the question of the environment vis-a-vis economic impact?

Mr. Train. We make a very rigorous effort throughout the programs of the Agency to undertake and do extensive analysis of the economic impacts of regulatory activities which are under consideration. In addition to this, we do a great deal of economic analysis of the impact of environmental programs in a more general sense.

We make considerable use of outside contractor resources for this purpose but we have a very extensive in-house capability as well.

We try to keep up to date on the overall impact on the American economy of environmental programs generally, the inflation impacts, the employment impacts, the capital, the impact on capital markets and capital availability, balance of payments, et cetera. We likewise do specific industry studies of industries such as iron and steel or chemicals or food processing or electric utilities, among others, which we recognize are particularly impacted by environmental programs.

We are presently doing a whole series of these which we call microeconomic studies of selected industries. These are all, I might say, in addition to the regular task of economic analysis which we do in connection with our regulatory proposals. Every effluent guideline that comes to me for proposal and final promulgation has with it an extensive economic analysis of the detailed impacts of the particular proposal. Likewise, and associated with this, we do energy impact analyses of such proposals because we recognize that, particularly today, the energy impacts are exceedingly important in terms of the national interest.

Now, we try as best we can to balance all of these concerns in arriving at what seems to be to us an optimum proposal, maximizing environmental protection at minimum cost both in terms of economics and energy. Exactly how you strike that balance, of course, is always arguable. All I can say is we are trying to do the best job we can.

ENVIRONMENTAL LEGISLATION

Mr. BOLAND. Your statement gives rise to the question I wanted to propound. In your opinion, at this time without any additional legislation, are we really striking the right balance between energy conservation and environmental protection? Do you think we need additional legislation?

Mr. TRAIN. I do not really feel that any major additional legislation is needed. We have proposed to the Congress some fairly limited amendments to the Clean Air Act, for example, to give us some more flexibility in the administration of the act which could give us some more flexibility in terms of energy use.

We have, in particular, made some proposals with respect to the conversion of powerplants to coal. But aside from those rather specific areas which have been worked out within the administration between us primarily and the Federal Energy Agency, I do not know of any need for further legislative assistance to this balancing process.

Mr. BOLAND. You are obliged to enforce and monitor to be sure that there is compliance with some seven acts. They are very complex, highly controversial and yet compelling fields in which the EPA must operate. It would almost seem that you are overburdened now with legislation. The Agency is compelled to see to it that these laws are monitored properly, that the people involved live up to them, that the industries involved live up to them, and that we get the kind of environmental protection that all of these laws were intended to produce.

Mr. ROUSH. Mr. Chairman.

Mr. BOLAND. Yes.

ANTITRUST PROVISIONS

Mr. ROUSH. The chairman's question prompted an inquiry on my part as to whether or not there might be legislation existing now which could be a hindrance in the attainment of certain goals and particularly as they relate to air quality.

A few years ago I had discussions with a former Member of the House who comes from Michigan and is now the President of the United States, concerning certain rulings by courts with regard to antitrust laws. As a result of the court rulings, major industries were not permitted to exchange information particularly with regard to their attempt to reach the emission standards set by EPA. They were restrained from doing that because of the existence of an interpretation of antitrust laws.

It seemed to be a very real hindrance in achieving some of the goals you were trying to achieve. Is this still true?

Mr. TRAIN. The constraint still remains in the law insofar as the antitrust provisions are concerned.

I think it is hard to make the judgment about which way to go on this. It is very important to maintain the integrity of the antitrust requirements in the law. At the same time an argument can be made that close collaboration by major units in the industry perhaps could arrive at a technological solution of some of these problems more rapidly, expeditiously, and perhaps at the lowest cost.

I am not sure whether that is the fact or not. I think a very real case could be made on the other side. In a highly competitive American economic system there are real advantages here in maintaining the antitrust provisions and encouraging a wide diversity of competitive efforts to seek these solutions.

There are substantial cost benefits available to the member of the industry who first achieves a solution. I think you could easily lose these competitive incentives to problem solution if you eliminate the antitrust constraints. This is the other side of the coin. I think it is a hard one to make a judgment on. I think at this point I would tend to come down in favor of maintaining the antitrust limitations. I hasten to say I am not an expert on antitrust law. It is a highly technical field.

Mr. ROUSH. This came to my attention because of the fact that a company in my area, International Harvester, is comparatively small as compared to the Big Three automakers. It was extremely difficult for them to devote the resources which would be necessary to attain the standards that have been set. They felt the constraint of this ruling very severely.

While it may be between the Big Three that the competition was desirable and they could attain the standards, when you brought in a smaller company and they were expected to do the same thing and they could not have the benefit of the Big Three's research, it was really difficult for them. It seems to me that it was a barrier and hindrance in achieving the standards that we were all hoping to achieve.

Mr. TRAIN. This is a very real situation, Mr. Roush. I would suppose that American Motors very likely is in the same position. My impression is that American Motors has a limited R. & D. program of its own in this area and depends very substantially upon the efforts of other elements in the industry.

Now there is under the law, as I recall it, a requirement for licensing of emission control technology as it becomes available at a market price. There is no prohibition, or to put it another way, the law does not permit, as I understand it, the holder of the patents on a particular emission control device to withhold the licensing of that device to other elements of the industry.

I think, as Mr. Quarles points out to me, there are time problems here; whoever first achieves the technology obviously has a very definite advantage. The licensing provisions simply do not fully solve that problem. So I would suppose the smaller units of the industry are under some disadvantage in the respects to which you refer.

Mr. ROUSH. Thank you.

Mr. TALCOTT. Mr. Chairman.

Mr. BOLAND. Mr. Talcott.

ECONOMIC IMPACT OF CLEAN AIR ACT

Mr. TALCOTT. May I talk for a minute about the problem of compromise between the pollution controls and the economic impact? To be specific, I suppose clean air is one of California's highest priorities. Some of our major metropolitan areas may be among the most polluted

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in the country. I think California generally supports the Clean Air Act, but I also think Californians believe there should be some amendments to prevent some pretty catastrophic economic impacts. Yet it seems, at least my word from the Governor's office and from his business and transportation office and from a letter from Donald Burns, the Secretary of that Agency, that you are really preemptory and absolute in some of the decisions you are making with regard to California. For instance, at one time it was said that the Clean Air Act required standards to be achieved by 1977 without regard to cost or social disorganization that may result as a byproduct of that achievement. That seems to be very strong and may be beyond the intent of the Congress. There were other instances where you seemed to want to enforce the Clean Air Act without regard to cost even if the attainment should cause irreparable harm to the economy of California.

You continued on by saying:

> If the Congress directed the Administrator to realize that the ambient air standards, in spite of economic costs, and in spite of the possibility that some business enterprises unable to apply or attain national standards within the prescribed time period might have to terminate operations.

Is there some possibility that a better compromise between the catastrophic economic impact and the goals of air quality could be achieved within the act? What is the situation?

Mr. TRAIN. The Clean Air Act as written is quite inflexible in terms of the attainment dates of the various standards. There is no question about that. I assure the committee that any absolutism or—I forget the other phrase.

Mr. TALCOTT. Preemptory. There are some worse phrases than that which I have heard used.

Mr. TRAIN. I was trying to protect the record as best I could. I have heard a good many of them myself. The fact is that the Clean Air Act requires the attainment of the primary ambient air quality standards, which are the health-related standards, by a fixed date set in the statute, May 31, 1975, or with certain rather limited extension options, 1977. But there is no flexibility beyond that permitted by the statute for economic reasons, or others.

This is a major reason why the administration has requested amendments to the Clean Air Act. These amendments were requested to provide the Agency greater flexibility to deal with rigidities in the act, both in terms of stationary source controls and in terms of the transportation control plans. I suspect that this is one area where the limited flexibility has created some considerable stress between the Agency and some of the communities involved. We have requested in this legislation specific authority to extend compliance dates where the particular requirement of a transportation plan would result in significant economic and social disruption.

OCEAN DUMPING

Mr. TALCOTT. May I ask another general question about the area of your jurisdiction?

You have given us seven categories. For instance, how far out into the sea do you have jurisdiction if people wanted to dump garbage or

solid waste or sewage; how far out into the ocean do they have to go for you to lose jurisdiction?

Mr. TRAIN. If they deport from a U.S. port, we can follow them as far as they go. No matter how far they go, our jurisdiction from the standpoint of permit and regulatory authority follows that particular vessel.

Mr. TALCOTT. For any pollution, air, water or noise?

Mr. TRAIN. No; I was speaking specifically about the ocean dumping permits. That is the Marine Sanctuaries Act referred to in my statement.

It is in that case where a load of waste is picked up at a U.S. port, we must grant a permit for that vessel, no matter where it dumps the waste, no matter if it is 1,000 miles offshore.

Mr. TALCOTT. How about sewage disposal if it had a 7½ mile discharge pipe. Do you have jurisdiction?

Mr. TRAIN. Yes.

OZONE LAYER

Mr. TALCOTT. How about out to the ozone layer, how high up do you go? Do you have jurisdiction over the ozone layer?

Mr. TRAIN. I do not know that I can address the question quite that way. If it could be determined, for example, that an emission into the atmosphere at ground level resulted in an atmospheric effect which created an imminent hazard to public health, we would have jurisdiction under the Clean Air Act over that particular emission.

Mr. TALCOTT. I am thinking especially of aerosol effect on the ozone because there may be a duplication of jurisdiction or perhaps a conflict.

The Consumer Products Safety people are threatened with a lawsuit if they do not do something. I thought they had that jurisdiction.

Mr. TRAIN. I do not think there is much doubt but that when you get into the ozone or upper atmosphere, you are getting into differing jurisdictions which must be coordinated in the Federal Government. As far as research is concerned, NOAA has jurisdiction.

Mr. TALCOTT. Are you declining jurisdiction over that particular matter?

Mr. TRAIN. No, I would not say that. It may be that we have more jurisdiction than others do. At the present time, we are trying to address this issue through an interagency task force chaired by the Chairman of the Council on Environmental Quality, Russell Peterson. This has been set up by the administration. It includes EPA and a number of other agencies.

AMBIENT AIR QUALITY

Mr. TALCOTT. You say you have jurisdiction over ambient air quality. What does ambient mean in your sense of it?

I am trying to find out what is within your jurisdiction. Do you have jurisdiction over air within buildings or stadiums?

Mr. TRAIN. Not specifically. I am not sure that my definition of ambient air quality will be very good. It is distinguished from an emission from a smoke stack or back of a car. One can measure the general atmospheric area surrounding the measurement device not related to a

specific emission going into that atmosphere and reach a statistical analysis of the ambient air quality; so many parts of sulphur oxide per cubic meter; so many micrograms of particulates per cubic meter.

Mr. TALCOTT. My worry is that with so many Federal agencies involved in this, in such things as smoking in elevators, problems of air quality control in subways, tunnels and other places, do you have any problem of jurisdiction?

Mr. TRAIN. I do not believe there has been any real problem of overlapping jurisdictions here.

With respect to occupational health and safety requirements are established and administered by the Department of Labor. An emission of a pollutant outside the factory into the ambient atmosphere is where our jurisdiction begins. We do not set a standard within the workplace.

CATALYTIC CONVERTER

Mr. TALCOTT. You talked briefly about your cross-media problems in response to the chairman's question about one pollutant affecting another media like water to sludge. How about the problems that you have in the same media? For instance, air emission control, the catalytic converter, you are causing more poisons in the air than you had to start with. How do you rectify those problems?

Mr. TRAIN. First, let me say that we are trying to determine just exactly what the overall significance of these sulphate emissions from catalytic converters really are.

I do not think we are ready to make that determination as yet. This is the kind of problem which could typically arise when technology is pushed rapidly and introduced without a fully adequate assessment of all of the factors involved.

Mr. TALCOTT. But you have a responsibility to protect us from the major polluters, people who have been polluting the air, water and soil. But don't you have some obligation to protect the public from the bureaucracy? You devised some rules and regulations that are more dangerous to us than the unregulated state. Don't you have a very quick responsibility to change that?

Mr. TRAIN. Let me say with respect to the catalytic converter, that it was not introduced at the direction of EPA. Industry selected the technology. We set the standards and industry develops the technology and introduces it. Many cars do not use the catalytic converter, particularly foreign cars, for meeting the 1975 Federal standards. The ones using catalytic converters to meet the standards are primarily U.S. cars and indeed all U.S. cars do not depend upon the catalytic converter. It is, generally speaking, immaterial to us how the standards are met. Congress has specified by statute the emission standards.

Mr. TALCOTT. Unless it causes a more serious pollutant in some other way.

Mr. TRAIN. In my recent suspension decision I decided that with respect to 1977 we should not tighten up the standards for hydrocarbon and carbon monoxide because, in our opinion, the technology that would doubtless be used increases the level of sulfuric acid emissions. It was my opinion that we should at least hold those emissions at a level no worse than they currently are with the 1975 cars.

I announced our intention to propose later this year a sulfate emission standard applicable to 1979 model year cars which in our view would be about the first year that new technology to meet such a stand-

ard could be introduced given the lead times involved. So we are addressing this issue, I think, as responsibly as we can.

Let me also add in connection with the sulfate problem, it is essentially EPA research that has developed what knowledge we have of the health impacts of sulfate emissions from catalysts. This research program goes back into 1973. We are increasing the level of funding proposed for this program in fiscal 1976. I think it has been EPA which has been largely responsible for identifying the problem and developing the amount of knowledge we have with respect to the health impacts at the present time. The automobile industry itself has really done very little insofar as health impacts are concerned.

OMB REQUEST

Mr. BOLAND. Mr. Train, on page 3 you indicate that "Clearly with the overall budget restraints we cannot achieve everything envisaged under our authorities." What did you ask the Office of Management and Budget for? What was the total dollar amount and what did you receive? Also, what was the total number of positions you requested for 1976?

Mr. TRAIN. I believe we asked for $927 million as compared to the $742 million we actually received, which is reflected in this budget request.

In terms of the people requested, about 600 over the 9,203.

Mr. BOLAND. So you wanted 9,800 employees instead of 9,300?

Mr. TRAIN. We requested approximately 9,900.

Mr. BOLAND. And you wound up with 9,300. That is a bad batting average. What about the amount of money you requested? You requested $927 million. That is a $185 million reduction in the request.

Are you going to be able to live with it all right and do everything you hoped to do with that, or that you would like to do with that?

Mr. TRAIN. Well, I think an honest answer to that, of course, is no.

CONSTRUCTION GRANTS POSITIONS

Mr. BOLAND. I think all of us recognize—you, the members of this subcommittee, and the Congress itself—that as a result of the Congressional Budget and Impoundment Control Act of 1974 that there have to be restraints throughout the whole spectrum of government. There are some things we can defer for a time if it is not endangering the environment and not endangering the public health of people. I am talking about those activities in which your Agency is specifically involved. As I indicated a moment ago, if the Emergency Employment Appropriations Act is signed by the President you will get 100 additional positions plus another 100 positions which were not approved by the OMB. Isn't that true? Didn't they hold back on 100 positions from the EPA?

Mr. TRAIN. I believe the last appropriation act actually provided a little more than 400 places for the 1975 fiscal year.

Now that act really did not become law until very late in the fiscal year. None of those positions have been made available to date by OMB.

Mr. BOLAND. How many positions are withheld with respect to the waste water treatment program?

Mr. TRAIN. I can say what we asked for. The budget request contains 646 positions for the construction grant program. We submitted a request prior to the Supreme Court release of the full $9 billion that had been impounded for additional positions. Now since this budget submission we have requested of OMB, and this follows the Supreme Court decision with respect to the $9 billion, we have requested an additional 500 positions and have asked that 200 of those be made available immediately in this fiscal year so we can start hiring them now. That would be 500 positions on top of the 646 that are in the budget submission before you.

Mr. BOLAND. As I understand it the OMB is holding back on 100 positions in this area; is that true?

Mr. TRAIN. Yes, sir.

Mr. BOLAND. So that 100 positions plus the 100 positions that are provided for in the Emergency Employment Appropriations Act of 1975, that will give you 200 positions for fiscal year 1975 that you think are necessary as a result of the release of $9 billion.

Mr. TRAIN. That is correct.

Mr. BOLAND. What are the problems with respect to this program? It is an $18 billion program. Nine billion dollars has already been allotted and about $4.5 billion obligated. One of the problems with this, some of the local people say, is that there is too much redtape within the EPA. As you look at the fact that you have committed only $4.5 billion, there is some indication that perhaps there is a slowdown within the EPA on the applications that are submitted to it.

What do you say to that?

Mr. TRAIN. There is no question that there has been some redtape in the program. EPA in terms of its own internal management cannot avoid some share of the problem that you describe. It is a far more complex problem than that.

Mr. BOLAND. Is it really due to the lack of personnel?

Mr. TRAIN. Only in part.

I think the key thing, of course, was the fact that in 1972 the Congress revised extensively the entire water quality program, introduced a whole new set of detailed requirements into the statute. The result of that action was essentially to stop the flow of projects that were then in the pipeline. It required EPA to develop a very extensive set of new regulatory promulgations, very complex. It has only been within, I think, really recent months that we have begun to break the back of this logjam. We have undertaken an extensive internal management review of the program starting some months back. We have identified, we think, a great number of areas in which improvements can be made and are now being made, I assure you, within the Agency itself, both in terms of headquarters operations and in terms of our regional headquarters operations because much of this program is dealt with at the regional level.

EPA AUDIT OF CONSTRUCTION GRANT PROJECTS

Mr. BOLAND. Let me ask you, there are some who say that the architects and engineers have really had a field day in this area. There have been some criticisms of some of the facilities that are being built. Your own audits reveal that more than $13 million have been wasted through poor design and construction work. How did this happen? How do

you monitor this kind of program, specifically with reference to the construction of these facilities on waste water treatment?

Mr. TRAIN. Mr. Chairman, you are referring to a preliminary audit which we conducted on a selective basis of some 41 individual projects around the country, and we turned up, as you have indicated, a number of problems in a number of these projects. We have concluded from this something which we in fact already knew pretty well and that was that we need far closer auditing control and far increased resources for conducting this kind of audit control over this program.

Now we are dealing with vast amounts of public funds in projects scattered all over the country. We are not just dealing with 50 States. As my statement indicated, we will be dealing next year with about 8,500 individual projects.

I think the primary problem from our standpoint is the inability to maintain sufficiently close contact with the development and the execution of the individual projects themselves. That is a very broad generalization.

Mr. BOLAND. What about the question of fraud? Was there any fraud uncovered by the audit of the EPA in any 1 of the 41 projects that were investigated or evaluated by the EPA?

Mr. TRAIN. Some of these projects are continuing under investigation so I do not think I can give a final answer at this time. But at this point we have not turned up any, certainly conclusive, indications of fraud. Let me hasten to say that a program of this size is fraught with this possibility. I am deeply concerned over the ability of the Agency to manage a program as large as this with as limited resources for the kind of audit which I have described.

Mr. BOLAND. I think your own audit indicated that one of the sources of the problem was that you do not have sufficient manpower to properly monitor the construction of these facilities.

As you know, the GAO has also been looking at this question and its preliminary report indicates that many of these waste treatment facility plants could be built at a substantial lower cost than that presented to the EPA.

MONITORING CONSTRUCTION GRANT PROJECTS

We understand that the EPA spends very little time reviewing the cost of the projects. You are principally concerned, of course, with stopping pollution. You also must have a concern with what the costs are to stop pollution. What about the ability of EPA to monitor the construction costs of these facilities?

Mr. TRAIN. It is certainly not as strong as we would like. I think this relates to the same problem under the audit capability. We have been working very closely with GAO in its examination of this program. We have continuous discussions at the staff level with GAO. As a matter of fact, I have written the Comptroller General indicating my appreciation for his staff's cooperation and assistance in the entire matter of the construction grant problem.

GAO has worked very closely with us in their review of value analysis in the construction grant program. They utilized a private engineering firm as a consultant and made a selective effort to really review plans and specifications of sample projects to see if the same

technical results could be obtained by using less costly design approaches.

Their recommendations reached substantial cost savings, in some cases as much as 50 percent of the projected cost of the project in terms of the proposal to EPA for funding. So that every indication seems to us to be that a greater capability on our part in this area could produce a more effective use of public funds in this program at substantial savings.

Mr. BOLAND. We would hope that the States involved here, too, have some concern about it. This is a program where 75 percent of the grant is Federal and the States or local communities pick up 25 percent. Is that true?

Mr. TRAIN. That is correct, either the State or local community, or both.

Mr. BOLAND. Since the States or local communities pick up 25 percent, that should place some responsibility on the States or local communities to be sure the money is spent wisely and is not wasted and that the cost of the treatment plants is not excessive.

I think it clearly indicates that there is a good reason for the States and local communities to contribute in some part to some of the programs that the Federal Government is engaged in. Otherwise, if it is all Federal money, if it is not their money, they will say, "We don't have to worry too much about it because it comes out of the Federal pot and it doesn't cost us anything." So I think there is a serious responsibility on the part of the State and local people to properly monitor these programs, too.

What about the cooperation given to you by the States and local communities?

Mr. TRAIN. Of course with respect to the communities themselves, we are dealing with such a wide number it is hard to generalize. The capability of communities themselves tend to be very limited in this area, except where you are dealing with a large community with an established capability in sanitary engineering and things of this sort. But when you are dealing with small communities—and a very large percentage of our grants are to relatively small communities—you do not find this kind of professional capability.

As far as the States are concerned, I think that generally speaking, we have very good cooperation. We get an awful lot of criticism but we meet with them very regularly. We have what we describe as our Group of Ten. We have, as you know, 10 regional headquarters in EPA. For each of those regions, the States select one State water administrator as their representative on our committee known as the Group of Ten. This committee meets at least four times a year for at least a full day and usually for 2 days and runs over the widest range of management, administrative, and legislative problems in this program.

I think we do maintain a very good effective cooperation with the States. The States are suffering, I think, in this program, from lack of resources of their own. I think we have estimated that, for State and local manpower needs in water quality control, we have identified an additional need of around 3,500 positions. Of this amount, we believe that something on the order of 1,000 positions are needed by State water control agencies. With the delegation of the permit authority to

the States we have, in effect, substantially increased their own management burdens in the water area.

CONSTRUCTION GRANTS POSITIONS

Mr. BOLAND. Let me ask this question once more. As I understand, in the 1975 budget you provided for a little over 500 positions in this area, and the OMB held back about 100 positions. If those 100 positions are released and the Emergency Employment Appropriations Act is signed, that will give you 200 additional positions for fiscal year 1975; is that correct?

Mr. TRAIN. That is correct, sir.

Mr. BOLAND. The request for the number of positions which you believe necessary to implement this huge program is 900 positions. That is the figure you gave a short while ago.

Mr. TRAIN. No; that was 907 positions total prior to the Supreme Court decision.

Mr. BOLAND. Prior?

Mr. TRAIN. Yes.

Mr. BOLAND. Now, as a result of the Supreme Court decision, how many more positions beyond the 907 do you feel you need?

Mr. TRAIN. We would like a total of 1,146 positions for this program.

Mr. BOLAND. For fiscal 1976?

Mr. TRAIN. Yes, sir. We would wish that we could have a portion of those in 1975, although I recognize this year is moving very rapidly to a close.

Mr. BOLAND. We hope we can give you at least 200 in 1975.

Mr. Shipley.

LEWISBURG, TENN.

Mr. SHIPLEY. Thank you, Mr. Chairman.

Mr. Train, I welcome you to the hearing this morning. I represent a rural district, Mr. Train. I am sure you are familiar with the problem I would like to discuss with you. Basically, it amounts to this: Many communities, particularly small communities, have been involved for several years in various Federal grant programs and loan programs to solve their basic water supply and sewage treatment problems. I know that there are several small communities, in Illinois and I am sure throughout the country, with similar problems.

I would like to bring to your attention this morning one that is not in Illinois but rather in Tennessee. This is a small community called Lewisburg. They have a real problem. They built, back in 1968, a new sewer plant. At that time it met the State guidelines, and everything was fine. They thought this would solve their problem for many years to come. Then, as you know, EPA came along and said that it did not meet the qualifications—the efficiency of the treatment—and that they would have to do something.

Of course, this is a problem shared by many communities. They do not have the financial ability to bring these facilities up to the standards EPA has set. This community, if I may quote, "The EPA said the existing system is totally inadequate, and a new plant costing $10 million must be built, which would add $4.8 million to existing bond indebtedness." EPA proposes that Lewisburg build this plant, although local officials advise that the present one is operating at 90-

percent efficiency and feeds into Rock Creek, which is actually, Lewisburg officials say, more polluted than the effluent from the existing treatment plant.

The natural water of the creek is heavy with phosphates and nitrogen. The local people do not know what to do. Can EPA force a small community into bankruptcy when they do not have the finances to go ahead and upgrade this facility to the standards that have been set?

Mr. TRAIN. First, let me say that I would be delighted to look into this particular case and provide you with a written report on what the situation there may be. I am not familiar with the particular case.

SMALL COMMUNITY FINANCING PROBLEMS

Mr. SHIPLEY. I am sure that you have had other cases throughout the country where the community has simply not been able to come up with the bonding power to bring their facilities up to the standards that have been set. Surely you have had that, haven't you?

Mr. TRAIN. The financial problems of communities all over the country have inhibited the ability of the local governments to come up with the 25-percent matching portion of these programs. We have recognized this as a problem. We are required by the 1972 Federal Water Pollution Control Act Amendments to get all municipalities in the United States on secondary treatment by 1977.

Now I don't know what particular level of treatment this town has, but I presume that this is what is involved here. This is a requirement of the statute. A great many communities in the country are not going to be on secondary treatment by the statutory date. Congress, in due course, is going to have to address this problem in terms of the legislative requirements. Now we are, under our permit program, not writing permits beyond 1977, but simply including in the permit requirements those steps which the particular community is reasonably able to accomplish between now and the statutory attainment date.

Mr. SHIPLEY. You can do that at the present time?

Mr. TRAIN. Yes, sir.

Mr. SHIPLEY. Is this the procedure that you attempt to follow, for example, where a community has taken advantage of a grant under the Farmers Home Administration or under the HUD water and sewer program? They did so at the time understanding that this would take care of their problem for 20 or 30 years.

Now they find out that because of the extensive borrowing that was required for bonding that they simply cannot go ahead. I would like to know what you do to a community when they simply cannot come up with the money?

Mr. BOLAND. Change the law.

Mr. SHIPLEY. That is a fact.

The end of the question was going to be: Do you need legislation to correct this?

Mr. TRAIN. I don't do anything to them. We try to push them as hard as we can to come into compliance with the law.

Mr. SHIPLEY. That is what I want to know. What do you do?

Mr. TRAIN. Let me ask Mr. Quarles to address this issue, if I may.

Mr. QUARLES. I think the first point to refer to is that the funds available for use within a State are assigned by the State agency

through setting up a priority list identifying the projects that are most in need of completion.

I don't have any knowledge, either, as to the circumstances in this community and the degree of treatment now being achieved and how much more is required to meet the statutory standards.

Mr. SHIPLEY. Let's just say it does not meet the standards.

Mr. QUARLES. If we assume that it does not meet the standards set by the statute, then the 1972 act did establish a burden to improve the treatment, even though the community might in good faith have felt that it had done the job. So we start from that. Now we would then begin the process of working with the community.

There is quite a series of administrative steps which we must go through before we would come to a point where I think one could really say we are forcing the community to do that. We would issue some form of administrative notice of violation and have a conference with the community. Then we might issue an order.

All of this would occur before we would take any court action.

Mr. SHIPLEY. Would you let me interrupt right there?

Say you reach this point and you find that it is an impossibility for the community to come up with their 25 percent. What happens then, short of court action?

Mr. QUARLES. What has happened in situations of that sort so far is that they have been deferred into the future. I do not believe there would be any case presently where it has happened that we have forced the community to go ahead where they have had no financial capability.

Mr. SHIPLEY. Thank you, Mr. Chairman. That is all.

Mr. TRAIN. The problem here in terms of legislation is that I think we all feel that simply lifting the 1977 attainment date for secondary treatment under the water legislation is just an open invitation to everyone, including those who have full capability of moving ahead, to slip their schedules that amount of time. So we do not want that. At the same time, maintaining this date in the law has a certain amount of unreality to it in terms of a lot of specific communities. We are trying to adjust to that and live with that by reasonable enforcement as Mr. Quarles described.

Mr. SHIPLEY. I know it was not the intent of the Congress in this act to create a hardship upon any community. It is very easy to pass a law and blanket it out across the country, but we find out it just does not fit. I do not know of any law we passed that fits every community and every economic situation. My point is, Mr. Train, that if we need some type of legislation to correct this, certainly I would hope, at the proper time, that you would come forth with some type of suggestion or information that would help on this matter. There is no question in my mind that you will find in the coming months that you will have many communities in the United States that have extended their indebtedness beyond all hope of ever being able to come up with any more.

A lot of this the Federal Government has done to these communities by making those grants available through the various programs we have had through the years. We got them into trouble. We will have to bail them out. I want to know that you do recognize the problem

and know it is there and if you require legislation, you will come forth and ask Congress for this.

Mr. TRAIN. You can be sure that is my attitude and interest. I am very much aware of the problem. We stand ready to work with the Congress in dealing with any of these problems right now.

SECONDARY TREATMENT

Let me add one point on the case you described. As I understand, your information is to the effect that the quality of the effluent from the municipal sewage treatment plant is better than the quality of the receiving water. This could be: The 1972 legislation changed the whole concept of the water quality program and imposed a uniform rule of secondary treatment by 1977, irrespective of the water quality of the receiving water or the impact on that water quality, unless State water quality standards required some higher level of treatment in which case that would be the requirement, but the law in effect prior to 1972 was water-quality oriented and different levels of treatment were required depending upon the quality desired in the receiving water.

Congress decided at that time that this was an overly complex approach that was almost impossible to enforce, very difficult to determine the exact impact of different discharges on the overall quality of a particular waterway. The Congress went to a uniform approach, basically technology-oriented, that could give rise to the kind of situation you described.

Mr. SHIPLEY. It is awfully difficult for the small community to clean it up beyond the point of what it is being dumped or drained into. That is awfully hard to sell. All of them were built prior to that and that was not a qualification.

Mr. TRAIN. Hopefully, as other communities upstream get their treatment plants into compliance with the act, and as industrial discharges come into compliance, this problem will go away.

Mr. SHIPLEY. I am sure that is true.

Mr. TRAIN. The quality of the Nation's rivers and lakes is improving all across the United States. There is no question about that. This is largely the result of this particular program. This is one of the major areas of progress I think we can all take a great deal of pride in. It does have some of the problems you described.

Mr. SHIPLEY. I believe that these small communities want to do their part. They were doing so with the help of the Federal Government through various programs. They find themselves indebted beyond ever getting out. It is a problem we have to face one of these days. We will have to do it with legislation, I would suggest.

Thank you.

SHIPSHEWANA, IND.

Mr. ROUSH. Mr. Chairman, I would like to pursue the question you asked the Administrator concerning administrative obstacles that have resulted in delays particularly in the construction grant program. I also represent a district which is about half rural and half urban with Fort Wayne, Ind., being half my district and then I have many, many small communities. They simply do not have the inhouse technical expertise to cope with many of your regulations.

Yet it seems that you are requiring the same kind of information and same application from a small community that you would require of a large community.

For example, when the consulting engineer who was working with a town called Shipshewana, which is so small you can still get a cup of coffee for a nickel there, asked for some advice in the completion of the application, what happened was that a copy of the application which had been submitted by Indianapolis was sent to him. That is a community of over 1 million people.

This was somewhat frustrating. In the early days of EPA we seemed to get along much better than we do now. I believe the reason was at that time you were able to provide what I might call onsite consultation with communities wherein before the application was submitted you and your people were willing to sit down with the community and go over their problem, work out their application. But that does not happen now. Your Chicago office will tell our people, submit your application and we will tell you what is wrong. Even telephone consultation service is not available to them.

This has resulted in many, many delays. Then as a result of changing the standards their ratings have changed and we have frustration. My people, like Mr. Shipley's people, will want to cooperate. Yet you are bringing some skepticism, additional skepticism, toward the Federal Government in my rural communities which I do not like and they do not like. I wonder if you would care to comment on what you may have in mind and whether additional personnel would help in encouraging a small community to cooperate and to get things done.

Mr. TRAIN. Your comments are very much to the point. I want to assure you that we share these concerns that you have expressed.

You have brought out some significant problems. It is, I think, quite clear that the complexity of the requirements—and these are required by the statute—are well beyond the capability of many small communities to deal with. I certainly would agree with you that passing on the application of a city like Indianapolis to any kind of small community that you described——

Mr. ROUSH. Shipshewana.

DELAYS IN CONSTRUCTION GRANTS

Mr. TRAIN. Well, that is probably counterproductive and worse than useless. Two or three things I think are required here. One is to insure that our own regulatory requirements are put into as simple and understandable and complete a form as we possibly can so that a community such as this can pick it up and make sense out of it. We are, at the present time, developing a manual which is seeking to compile all of the various requirements and put them into—I couldn't say exactly layman's language, but that is the effort and direction in which we are trying to go. More importantly, I think, a direct continuous consulting relationship with these communities is probably the key to solving the kinds of problems you are talking about. There is no way we can, under the statute, have one kind of technical requirement for a large community and a different kind for a small community. There has to be ways in which these require-

ments can be communicated effectively and made understandable to the smaller community. This is one of the reasons and one of the very important reasons why we feel we definitely need more resources in terms of staff in this particular program.

The region 5 headquarters of EPA in Chicago simply does not have the people to be able to do that kind of consulting with the large number of projects it is trying to deal with. Unfortunately, what resources there are probably tend to get concentrated on a very few very large projects.

The only answer to this one that I can see is more resources in terms of people. This particular need as you described it almost exactly was one of the high priority matters identified by our own management study of this program. It is suffering badly from the inability of the agency to give that kind of close supervision and consulting relationship to these individual projects that we would like.

DELAYS IN CONTRACT SIGNING

Mr. ROUSH. Let me give you another example of delay. Just yesterday I received a letter from the president of a construction company. Without giving names, nor the name of a community he states in his letter that he had learned that a tentative date had been set for May 16 for the closing and contract signing of the waste water treatment plant expansion for this particular town. His company is the contractor.

He goes on to point out that the bid was let last September 4 and that obviously there have been many price increases since then that he would have to absorb in accepting the contract. He said, "It seems unnecessary to me that 8 months need to elapse from time of bid to contract signing." This has placed a tremendous financial uncertainty on the contractor and in this particular case extends construction through next winter which would not have been necessary if the job were awarded in a reasonable time. He goes on to say he is not unhappy with the contract because they are anxious and pleased to be a part of such a project but he does point out that this 8-month delay is surely unnecessary. This seems to be typical of many complaints that I hear.

We, in my area, have placed much emphasis on the work of EPA because of the nature of the area and because of natural interest on the part of myself.

Mr. TRAIN. May I comment on this particular problem? Here, again, it is a matter of concern to us. Let me say that in any particular cases of this sort, it is helpful to us if they can be brought directly to our attention so we can take a look at that particular project and see if there is some way in which we can move it along.

We have discovered that there have been extensive delays in all parts of the country between the time that bids are let and projects have actually gone into construction. Now this is primarily a problem not within EPA. We have made the grant. We have approved the project. It is in the hands usually of the local government to deal with. That doesn't mean the problem doesn't exist. We feel a very strong sense of responsibility for trying to solve that problem as well, particularly at this time when we are anxious not only to solve water

quality problems, but also to help the construction employment situation as much as we can. Last November we called a national meeting here at EPA, the State agency heads and our own regional people and headquarters people, the national representatives of associations of contractors, consulting engineers, public interest groups of various kinds and had a day-long discussion of this particular problem. It brought out that many projects around the country are delayed 18 months or so for no particular reason that we can determine. Sometimes it is purely inertia on the part of the local governments; they get their grant and it is approved and then they forget about it and go on to something else.

I left out the labor unions when I mentioned the earlier groups. The labor unions have been a very important part of this. The building trades people and other construction associations have a great interest in the construction grants program. We need their help to see to it that these projects move.

All of these groups have now been involved in regional and, in many cases, State meetings of the kind I have mentioned. The most recent was in February in Atlanta. We had over 600 people from that particular region at this meeting, which indicates the level of interest in this program. We are eliciting the help of all these interested groups in trying to move projects at the local level.

We do a computer printout here in Washington of all of these projects periodically.

We pass these on to the contractor associations and to the labor unions at their national headquarters. We alert them to projects which for some reason are now—I think 4 months is the key date—4 months beyond bid and nothing has happened, hoping they can use their own direct contacts to try to move the projects along.

So we are trying as best we can to address this issue. But it is not one over which we have direct control. It is a local government failure of some sort.

Mr. ROUSH. Do you approve the bid figure? Does that have to come to your office for review?

Mr. TRAIN. I will ask Mr. Quarles to answer.

Mr. QUARLES. We approve the application for the project which contains estimated spending levels prior to the time when the project goes out for bids. So our approval is completed at that point. Thereafter, it is in the hands of the community to follow through, conducting the bids and awarding the contract.

Mr. ROUSH. Thank you.

COOPERATION BETWEEN EPA AND OTHER AGENCIES

Mr. Chairman, on a positive note, I would like to congratulate the Environmental Protection Agency on what I have observed to be splendid cooperation between this agency and particularly the Department of Agriculture and other agencies of Government. I have seen it happen through the Chicago office and more particularly with relation to a project in my area which has attracted, I believe, some national interest. It has become more than a research project. It has become a model, I think, of cooperation between the Environmental Protection Agency, the Department of Agriculture, local universities,

and local communities. I am referring to the Black Creek project which is a research project dealing with the problem of siltation. It is a project where I thought people could not get together because I know the nature of these people. Here we have the EPA financing a project which is controlled and run by the Soil and Water Conservation District of Allen County, Ind., which has the cooperation of the local engineer with the scientific and technical work being done by professors at Purdue University. It seemed impossible to me that we could have that kind of cooperation. But through the fine work of Mr. Ralph Christensen in your Chicago office, it has happened.

I would like to congratulate you on that type of activity. I think it is splendid.

APPROVAL OF BIDS

Mr. BOLAND. With respect to the question that Mr. Roush just asked, you don't approve the bids that are submitted, do you?

Mr. QUARLES. We do not approve the bids as such.

Mr. BOLAND. Who does this?

Mr. QUARLES. This is Mr. Agee, Assistant Administrator for this particular program.

Mr. AGEE. We award a step 3 construction grant to the community. We have estimated costs come in with the plan specifications. When the community has that grant from us, they go ahead and let the bids and receive those bids. EPA does not have review over those bids, approval or denial. In some cases we do provide technical assistance to that community to advise them as to whether or not that bid price they got is within bounds.

Mr. BOLAND. I would presume a lot of the smaller communities, such as some of the smaller ones mentioned by Mr. Shipley and Mr. Roush, actually go through a State agency, a department of public health, for instance, that probably exercises more jurisdiction in this area than even the local communities. Is that the way it works?

Mr. AGEE. Yes; the small communities rely to a great extent on their State water pollution control agency, and in many cases EPA and the State agency does provide the workup.

Mr. BOLAND. But you do get a look at the dollar amounts to determine whether or not they are reasonable?

Mr. AGEE. Yes, sir.

Mr. BOLAND. The committee will stand in recess until 2 o'clock.

AFTERNOON SESSION

Mr. BOLAND. The committee will come to order.

I will recognize Mr. Traxler of Michigan.

Mr. TRAXLER. Thank you, Mr. Chairman.

To Mr. Train and his fine staff I would say welcome to this committee's jurisdiction. I know, like the rest of my colleagues on this committee, I am tremendously impressed with the kind of authorities the Congress has imposed upon you and the responsibilities. We don't envy you in the performance of your duties. Indeed, I am pleased to be over at this side of the table.

Let's go to the construction grant program.

The chairman has already stated that $4.5 billion of the $18 billion authorized has been spent to date. You have used the word "logjam"

to describe the hundreds of pending applications. We in the Congress, like yourself, I am sure, are very concerned about the logjamming. This program is important to many communities throughout the United States.

I know you and your staff in Washington understand the importance of getting this flow of funds out. Also, I think taking a district such as mine, where we have over 16 percent unemployment, obviously the implementation of the program can mean construction jobs. The construction industry as you well know has even greater unemployment than the automobile industry. That says a lot.

EMISSION STANDARDS

I want to congratulate you on your automobile emission standards for an additional year. I only wish it was in your power to do it longer. I hope the Members of the Congress understand the problems here.

You have told us that EPA intends to delegate greater authority to the States, at least those States that are willing to accept and can move to certify local projects. Can you elaborate on those plans? Is there a timetable for implementing them? I understand that California for some time has had the authority to implement the program. It only has had this authority.

What are the Agency's thoughts relative to extending this authorization to other States?

Mr. TRAIN. It is my understanding that this is much wider than just California. Let me ask Mr. Agee to discuss the delegation of authority to States under this program. Let me make a couple of points before Mr. Agee begins with regard to some of the comments you have just made.

CONSTRUCTION GRANT RATE OF OBLIGATION

I used the term "logjam" with regard to the construction grant program. I think it is important to note that whatever the cost, there has been a very substantial turn-around in the rate of obligation under the program. In the last fiscal year, 1974, with regard to the contract authority under Public Law 92–500, we obligated just a shade under $1.5 billion, $1.49 billion. In this fiscal year we expect to obligate $3.5 billion. In the next fiscal year we are projecting an obligation rate of $5.6 billion. So that given the fact that this program, when I first became familiar with it when I was in the Department of the Interior where it was then in 1969, was at a level of $214 million at that time. We have now come, I think, a very long way. I might add just to support the record that was being made this morning, that we are doing this with substantially the same numbers of people that we had back when the program was at a $200 million level.

With respect to the employment impacts we estimated, based upon Bureau of Labor Statistics information, that each $1 billion of construction grant activity under this program involves direct employment job impact of about 20,000 and about 26,000 or thereabouts of indirect employment impacts. So some 46,000 jobs are involved roughly in each billion of construction activity.

The rate of obligation, of course, is not translated immediately into construction activity. You have to look at outlay figures, I would sup-

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pose, to get a more accurate picture of the direct results in terms of employment activities. But I think these are important factors to keep in mind.

DELEGATION OF AUTHORITY TO STATES

Jim, could you pick up with the question?

Mr. AGEE. Yes.

The question was what progress we are making toward delegating certain portions of the construction grant program to the States. There are two areas we have been delegating to the States. One is the review of plans and specifications for the sewage treatment facilities. The second is in the operation and maintenance manuals that must be prepared by the consulting engineers. These are the two general areas. To date we have delegated the plans and specifications review to 22 States. Our regions advise us that by the end of the fiscal year we will have an additional 14 States bringing the total to the 36 States that will have the important delegation of review of plans and specifications.

Mr. TRAXLER. Is this delegation a total delegation or do your regional offices then review the review?

Mr. AGEE. Once we delegate the plans and specifications to the States we do not double up on that review. Our people may take a cursory look at it but the detailed review of the design plans and specifications will be done by the States and not our regional offices. In the other area, we have delegated the maintenance and operation manuals to 26 States. We anticipate by the end of the fiscal year to have nine additional States.

You did make reference to the program that is in operation in the State of California. We call that the California fee proposal. Under that it is an eligible feature of the construction grant to the community to include supervision by the State for that particular project. Then the State can find resources from the community to do the necessary work in review of that plant, to make the inspection during construction and to follow that project along.

This is the only State where this has happened up to this time. California has the legislation statewide to be able to contract for this kind of work with the community. But from the EPA standpoint, we have been able to make that as an eligible feature to the community in their construction grant package of which the Federal share is 75 percent.

Mr. TRAXLER. Do they do the certifying?

Mr. AGEE. No; the certifying is done by the EPA. Even with the delegation we have and the way the State of California is operating this beyond what we delegate to other States, EPA has a responsibility for that particular project, to see that it is done right and properly.

WRIGHT-CLEVELAND BILL

Now we are banking very heavily on the Wright-Cleveland bill which is now before the Congress, a bill which would permit the Administrator to delegate a portion of the construction grant program to a State. It can be a full delegation where the State has the manpower, resources and legislation to carry it out.

We are banking very heavily on this passing. We think that is where the program belongs.

Mr. TRAXLER. If it does not, do you think you still have the authority to do many things contained in that bill?

Mr. AGEE. We have the authority to delegate even additional work to the States such as the review of the infiltration inflow analysis. We can delegate other features.

One of the problems we have been having in delegating activities in all our water pollution control programs to the States is that the States are pinched resourcewise just like EPA is. We find many States who do not have the personnel and resources to carry out many delegations. So many programs of water supply, pesticides, and other things can be delegated to the States but the States do not have the manpower to do it. That is why we have real enthusiasm for the Wright-Cleveland bill. That would provide up to 2 percent of the allotment for State management of that program.

Mr. TRAXLER. If you do more extensively delegate some of these authority powers, what do you anticipate would be your manpower needs? Would you reshuffle some of your current personnel? Would that be involved also? You anticipate you are going to need the level of personnel that we have discussed here this morning?

Mr. AGEE. With the passage of the Cleveland bill, for example, we would have the authority to delegate that program. Being realistic, by the time the Congress could act on it, it would be sometime in the fall. Our best estimate is that it would take about 6 months for a third of the States to be in a position to do this.

We estimate that the States now have something like 1,050 people working in the construction grant program. They work on maintenance and operation as well as the construction grant program. But if the Cleveland bill were to pass, the States would find themselves in a position a year or 18 months from now to gear up to do this. Then perhaps EPA could readjust some of our internal resources if we did get an additional 500.

Mr. TRAXLER. Do you mean you could do some onsite consultation, as Mr. Roush mentioned?

Mr. AGEE. Yes, this is one of the biggest deficiencies now, that we cannot get out and sit down at the table with the city and their consulting engineers in an effective way to get those projects working in the right direction.

Mr. TRAIN. Let me interject an additional thought here. I do not think, as much as we support the principle of the Cleveland bill, that it can be looked to as a solution to the construction grant log jam, the auditing problems and things we have been talking about today for the near term. I do not know exactly what I mean by the near term, but I would say for the next 1, 2, or 3 years.

I do not believe that that kind of legislation can be looked to for a solution to the problem.

Mr. TRAXLER. I would like to say for the record that there are several reasons why we are leary of the administration program today. One is the attitude on the part of the previous administration. I think there are three factors today that act as a constraint. You are operating under very complex legislation, for one. Second, I think there are a certain amount of bureaucratic problems present in every program. Third, I think you talked to us this morning on the need for additional personnel. I think those last three categories are paramount. The first

has sort of been taken care of, I trust, and I hope the Agency has shifted from sort of reverse into high.

REVIEW OF GRANT APPLICATIONS

I'll move on for a couple more questions, if I may, Mr. Chairman. Have you done any studies on the average amount of time it takes to move a grant application from step 1 to step 2 to step 3?

Do we have any kind of information on that?

While we are on that, let me say I was told about one of the things that happens in a regional office during a review of the grant application. They may get to part 7 of the application and notice it is, perhaps, not fully completed or wrong figures are given. That application then goes over here. The application is not finished in the sense of going through all 477 parts of it.

It stops at that point and it bucks back to the State and the State sends it back to the community, the community comes back to the State and it then is sent back to the regional office. Then they pull the application off, the whole file, put it on active and then go to step 8 or 9. At step 10 they might get stuck on another problem and they notify the State and the State notifies the community. These are the kinds of things we are told. I do not think anybody in the committee is overlooking what is going on in the regional office.

Could you comment on that?

Mr. TRAIN. There is certainly some truth in that description. It is one we have been concerned about.

We have identified as among the priority needs shown by our own internal management review of the program, one of the things that we are recommending to our own regional headquarters urging upon them quite strenuously is that they try to assign continuing responsibility for a given project to a specific individual so that it does not, within our regional headquarters, get passed back and forth from office to office. Now we may not be able to do this completely, but I think we can make some major improvements, and we are, in dealing with that particular problem. We are, as part of that, trying to insure that this responsible individual—I don't like to use the phraseology "cradle to grave," but this has come to be used in the Agency on this matter. We are trying to get the plants built and not put into a grave. We are trying to have staff responsibility to follow the project from the beginning until it is constructed and in that way try to get away from the passing back and forth that you describe.

Let me ask Mr. Agee to get into our estimates of the time lag involved in the various steps.

Mr. AGEE. Step 1, step 2, and step 3 projects that we have, large projects, small projects, but generally a medium-sized project would go from 6 to 12 months in step 1, facility planning grant. It could stretch out longer for the larger, more complex metropolitan area. I think 18 months would be outside for the very large and 6 months for the very small projects.

Step 2, development of plans and specifications, for the small projects these can be completed and are being completed in less than 6 months. Again, the very, very large ones may take a year or more to really develop them for a metropolitan area.

The construction, once we get to that stage, again the small projects, many can be completed in a year, such as a waste stabilization pond in a small community.

The large metropolitan systems may take 3 or 4 years to complete, something like the city of Chicago. I can only give you these kind of ranges. It is something in that neighborhood.

Mr. TRAXLER. I do not want to take any more time. Tomorrow when I perhaps have a chance to come back with some additional questions, would you be prepared to answer whether or not you are considering contingency grants?

We will let that sort of be a cliff-hanger over the evening and get to it tomorrow.

Mr. TRAIN. All right, thank you.

Mr. BOLAND. Mr. Talcott.

NEW TECHNOLOGIES

Mr. TALCOTT. Thank you. I understand that as a general practice, in order to develop a fairness, evenness, and equity throughout the whole country, that you set standards; you do not impose upon industry or communities or people the kind of mechanisms, the kind of techniques, or the kind of financing arrangements; you just get the standards set. As one person said, you should set maximum contaminant levels and allow technology to provide the appropriate techniques.

The technology is in the constant state of change and innovation. If you were to develop the technique or mechanism you might be denying changes and innovations that could be likely to take place.

In the automobile industry it is very clear that you have done that. You told them to develop emission control standards and if it does not suit you, you will do something about it. But in water treatment plants you actually have your people go out and check plans and specifications and you tell them how to do it.

Maybe as the chairman suggested, the reason for that is that there are Federal funds involved, and therefore, you have a responsibility. Is that why you do it differently?

Mr. TRAIN. I suspect you put your finger on the primary fact there. Well, it is 75 percent Federal funds.

Mr. BOLAND. Do you allow for innovation and change and new techniques in water treatment and this sort of thing?

Mr. TRAIN. Absolutely. I think we could probably argue a good bit over whether we do enough promotion of new alternative technologies. We do have a research program designed to develop new technologies in the waste treatment area.

We do fund demonstrations of new technologies, chemical treatment, and advanced treatment of various kinds.

We do not try to put everybody into a technology straitjacket.

Mr. TRAXLER. And keep them there.

Mr. AGEE. That is correct.

PESTICIDE RESTRICTIONS

Mr. TALCOTT. In the insecticide and rodenticide area, you even go further in that area and there is no great Federal involvement there.

You have imposed a new requirement on applicators for restricted use pesticides. They have to be State-certified. There is going to be a whole new level of bureaucracy added. Why don't you establish the standard and let them do it rather than establish a whole new bureaucracy and have to train a lot of new insecticide applicators and have this big force of new governmental enforcement agents roaming around every farm.

Mr. TRAIN. We are hoping first that this will not involve any great new bureaucracy. We do not believe it should. Second, we are dealing, as you pointed out, not with the chemical constitution of the particular product, in this case, but in its use.

This is in recognition, as the current legislation provides, that the risks of many pesticides are not inherent in the chemical formulation so much as in the use or misuse to which it is put, exposure of people going into a field after it has been subjected to a certain pesticide application and things of that sort, overapplication, application at the wrong time or on the wrong products, for example. If we were to follow the practice of simply having a label which says how to use it and then have to depend upon enforcement technicians to go around and see whether this is being done properly or not, I suspect we would have to have a far larger bureaucracy of enforcers than the rather modest bureaucracy or process that we foresee in terms of training people so that we have some reasonable assurance in advance in dealing with really risky pesticides.

We are only dealing with those we described as restricted use here, with some reasonable assurance that they know what they are doing.

This seems to us the best way to avoid extensive enforcement and surveillance activities at minimum cost.

[The following information was submitted for the record:]

STANDARDS FOR AND CERTIFICATION OF PESTICIDE APPLICATORS

The 1972 FIFRA requires that after October 1976, anyone using or supervising the use of a restricted use pesticide must be certified with respect to use and handling of such pesticides. Regulations on applicator certification standards were published (as final) in October 1974.

These are not a new set of applicators, but farmers, ranchers, vinyardists, orchardists, foresters, and others. On the basis of a recent USDA/ES/SCES survey, there are estimated to be over 2 million private and 100,000 commercial applicators.

Under section 4 of the act, certification of applicators is a State responsibility and most have already designated the State department of agriculture as the lead agency to administer the program so there will be no whole new level of bureaucracy added on.

Section 23 of the act authorizes the Administrator to contract with States to assist and encourage the development of training programs for applicators. $500,000 has been transferred by EPA to USDA/ES to assist the start of training programs through State cooperative extension services. $5 million is included in the fiscal year 1976 Budget to expand State training programs.

Although most private and commercial applicators have, for a number of years, been using the majority of these pesticides, most of the known fatalities and hospitalized accidents have been caused by their misuse, or improper handling, including storage and disposal of used containers and wastes.

States are responding very favorably on getting applicator certification and training programs underway. The Agency expects to have 35 State certification plans approved by October 1975 and the remainder by June 1976. A joint issuance by Secretary Butz and Administrator Train in December 1974 on applicator training underscored the importance of an agreement between the State extension

service and State lead agency (usually State department of agriculture) regarding responsibilities for certification and training. Some States are already training applicators and others are making good progress toward getting training programs underway. To offset the problem of widespread misconception that all private applicators must pass a written examination, the Agency has distributed a policy paper which outlines acceptable methods for determining competency that would not require examination.

Mr. TALCOTT. So then you are not restricting the use of a formula called 1080 on squirrels?

As long as it is applied right you are not going to prevent the use of it?

Mr. TRAIN. The use of 1080 is not permitted in the first instance.

Mr. TALCOTT. I have a farmer who tells me that unless he can use 1080 he starts out with 1,000 squirrels on his ranch and by the end he will end up with more tons of squirrels than cattle and they will eat many times more the feed grain than will the cattle and that is not good for the farmer or countryside. The 1080 has worked before. You are saying you are not going to tell them how to use it, but you are going to tell them, "No, you cannot use it at all."

Mr. TRAIN. There are some products whose registration has been canceled or suspended by the Agency under the act. 1080 is a broad spectrum poison which has had most public attention in connection with its use on coyotes in the West by sheepherders, sheep ranchers, and the cattle industry. I have not heard of its use particularly on squirrels but it undoubtedly could be effective.

[The following information was submitted for the record:]

SUSPENSION OF THE USE OF PRODUCTS CONTAINING SODIUM FLOROACETATE (1080)

On March 9, 1972, after extensive review of all available information, the Administrator ordered: "that the registration for all products containing sodium floroacetate (1080), sodium cyanide, and strychnine for use against mammalian predators be canceled and suspended immediately."

Aside from the Agency's review, a detailed petition was submitted to EPA by several distinguished conservation groups urging that the registration of 1080 and the other compounds be canceled and suspended immediately.

An advisory committee, under the chairmanship of Dr. Stanley Cain, Director, Institute for Environmental Quality, and professor of botany and conservation at the University of Michigan, issued a report which dealt at length with the effects of 1080, strychnine, and cyanide for predator control and pointed out the extreme toxicity of these compounds, their nonselectivity, and their potential impact on the environment. All of these poisons, which are among the most toxic chemicals known to man, have a similar pattern of use as unattended baits and are toxic not only to their targets, but other animals and wildlife. Use of 1080 has been suspected of killing birds including some of our rare species.

Mr. TALCOTT. What do you do with a farmer who will have more tons of squirrels on his cattle ranch than cattle? That is a devastating situation.

Mr. TRAIN. Perhaps he ought to develop a market for squirrels.

Mr. TALCOTT. He says that is not acceptable in this country. He was thinking about doing that but the market will not return enough to pay for the feed grain.

Mr. TRAIN. I am not directly familiar with the squirrel problem but there may be other rodenticides registered for use against squirrels.

I suppose there are. I know with regard to coyotes there are a variety of nontoxic tools available, trapping, shooting, and things of this sort.

TRAINING OF APPLICATORS

Mr. TALCOTT. How are the States responding to the need to get these training programs underway?

Are we going to have these applicators ready?

Mr. TRAIN. Well, I wish I could give you total assurance of this. It is a matter of continuing concern to us because we very much want to have these programs all in place by October of next year. It is very important to us.

The progress around the country has been somewhat mixed. Some States are making very good progress. Others are not. Perhaps Mr. Agee can give us some indication of that.

Mr. TALCOTT. How do you compel all the States to measure up? You are not going to let one State drag its feet and force another State to comply right away.

Mr. TRAIN. The enforcement essentially is the fact that if a State does not have a program for certification then the farmers of that State will be deprived of the use of that particular restricted use pesticide which presumably is of value to him in his practices.

Mr. TALCOTT. Is California responding well?

Mr. AGEE. The State of California has responded very well. We have received a dozen or more preliminary State plans for certification of operators. We suspect we will have 20 or more by the end of the fiscal year. We will start approving State plans for operator certification in 2 or 3 months. I think we will really start getting the States to adhere.

Our best estimate is that most of the States will have operator certification plans approved by EPA before this winter. That is really the training time we have to get at the farming community.

The legislation requires that the States certify the competency of operators but EPA establishes the standards.

Mr. TALCOTT. You have done that?

Mr. AGEE. Yes, we have. We still have to put a little more clarification in what we will accept. We have been working with a good number of States on what they want to do and how they wish to approach it. We have drawn the bottom line of what we will not accept is a plain signup program where the farmer says he himself is adequate to deal with these restrictive pesticides.

We have drawn the bottom line that if an individual in that particular State will attend a training course, take an open book examination, which is a half-day training course, that that is the minimum we will accept.

Many States want to have a classroom for a 1-day session and many are using film strips and materials for this. In order to assist the farmers in this program our budget contains $5 million which we will transfer to the Extension Service of Agriculture. The extension man knows the people and will provide a good bit of the training for the farm communities.

VESSEL POLLUTION

Mr. TALCOTT. A number of constituents out in my area who own boats of all kinds complain rather strenuously that they have been required to have holding tanks for onboard sanitary facilities while cities continue to pour billions of tons of raw sewage and industry

pours billions of tons and individual autos by the million continue to pollute the air. But you just pick on the boatowners because it is easy, because they are small and you can make a good case there. But you would be afraid to tackle a big one with the same vigor. That could not be true, could it?

Mr. TRAIN. Not exactly the way you have expressed it.

Mr. TALCOTT. What do I tell the boatowners at home?

Mr. TRAIN. I don't think you can tell them anything very specifically at the moment. I think they know. We have been having a very extensive review of this issue within the Agency. We are required by the Federal Water Pollution Control Act amendments, section 312 to deal with this issue and the options lie between a flow-through device with treatment, essentially, I think, a macerator-chlorinator, which chlorinates and chops up the waste before flushing it into the water or by a holding tank on the vessel which is then emptied, hopefully, when the vessel goes to a shore facility and gets pumped out into a receiving facility.

Mr. TALCOTT. Do you require the same thing of our Navy craft or steamers, riverboats, big vessels?

Mr. TRAIN. We will have the same rules.

Mr. TALCOTT. But are you enforcing them like you are against the little fellow?

Mr. TRAIN. I am not aware that we are really enforcing this. The Coast Guard is administering the enforcement of these provisions. I am not aware that the Coast Guard is really going after them.

Mr. TALCOTT. You set the standards. The State is enforcing some of them.

Mr. TRAIN. I think some 20 to 30 States have instituted no discharge requirements which would involve holding tanks. Of course, in California this is a particular concern to boatowners because so much of the boating activities are out in the Pacific Ocean.

Mr. TALCOTT. It is also in the inland lakes.

That is where the people are really hurt, I think. As long as you are enforcing it equally and across the board, and you have the facility and you are not afraid to attack the Navy ships.

Mr. TRAIN. Absolutely. I would rather go after the Navy than most of the individual boatowners.

I had a meeting last week with representatives of the national boating groups including those from California who spent 1 or 2 hours with me in my office discussing this problem from their side. It is a highly complicated problem.

USER CHARGES

Mr. TALCOTT. I have one other question which followed what Mr. Shipley was talking about this morning. It is the complaints about the Comptroller General's interpretation of the user charges under section 401(b) of the act. This prohibits ad valorem taxes. Many cities have had to finance their water treatment plants on an ad valorem tax basis. It fits in their community.

This is very devastating to some small cities who have one or two principal industries that have been paying a different kind of a tax. This does exactly the same thing that you are doing to Lewisburg,

Tenn. You are practically putting the community out of business because they cannot rearrange their taxing base this easily.

Are you required to be this strict and obstinate about your financing system?

I know you are not that strict about mechanisms for them to develop their water treatment standards. Your main concern, I would think, would be water quality control or sewage treatment control. The standards are not the mechanism, not the technique, not the way of financing.

Mr. TRAIN. The user charge provision is contained in the 1972 Federal Water Pollution Control Act amendments. We are required by the statute to impose a user charge requirement as part of the approval of grant applications.

Now we recognize the many communities which would prefer because of historic reasons or because of their own particular circumstances to use an ad valorem tax approach. We endeavored administratively to build more flexibility into this picture by permitting the use of ad valorem tax systems under certain criteria. We thought this would essentially deal with the problem.

The General Accounting Office ruled that our administrative effort was invalid under the statute and directed us to cease and desist, so to speak. So that threw us back into the strict adherence to the user charge provisions of the statute. We have now, as I recall, asked Congress for legislative relief here. We have submitted an amendment.

Mr. TALCOTT. You are concerned about water quality control and you are not concerned with social or economic aspects of local government, I take it.

Mr. TRAIN. That is correct. The Congress also is interested in the economics of the program. They are interested in insuring that the long-term costs of waste treatment are equitably distributed amongst those elements of the society that are producing the wastes that are being treated. I think this has been the purpose of the requirement.

FLOW-THROUGH DEVICES ON VESSELS

Mr. TRAXLER. Would you yield so I can pursue that question of the boat tanks?

Mr. TALCOTT. Yes.

Mr. TRAXLER. I have a letter from the Honorable William Milliken who has been concerned about the question of holding tanks versus flow through. Let me give you some of his thoughts on that and perhaps you can help me to respond. He refers to the discharge standards which, as you know, the State discharge law now requires the holding tanks.

About 90 percent of our pleasure boat owners and operators have complied with that statute willingly and not always happily, but willingly because the alternatives are unpleasant. The Governor says that it is his understanding that the EPA is considering adopting as a standard the flow-through devices. Indeed, have you already done that?

Mr. TRAIN. I announced some while back that we would reconsider the whole issue. That immediately gave rise to the impression that we were going to be strictly to the flow-through device. The whole issue is still under consideration between us and the Coast Guard and the various affected parties, including the States.

Mr. TRAXLER. I think it is interesting to note that the Coast Guard published a regulation January 30, 1975, that said, "Based on the probable adoption of the recommended revision of EPA standards during the next 12 months a regulation is added to permit flow-through devices to be installed on new vessels for 1 year."

They know more about what you are doing than the Agency does.

Mr. BOLAND. The Coast Guard has been very hopeful that they will not end up with a no-discharge holding tank rule. They have been very opposed to it consistently ever since the act was passed. In part, I suppose it is because of enforcement reasons.

Mr. TRAXLER. I want to give you one sentence from the Governor's letter and then I will let the matter go and I will try to find out from the Coast Gaurd what the problems are. The Governor says:

> I believe any relaxation of the EPA standards which I personally do not believe are adequate as they now stand, will be a very serious blow to our water craft pollution-control program which adequately protects Michigan's fresh waters.

I recognize that you have a difficult task. I wish you well in these determinations. I know that you will do the right thing.

Thank you, Mr. Talcott.

Mr. TRAIN. Let me just add, I think in this particular issue it is really impossible to do the right thing. There is no way.

Mr. TRAXLER. It is a strange thing that the pleasure boaters of my State who at first opposed the act as being too burdensome, and who have subsequently installed the holding tanks, are very angry that the commercial operators on the multithousand dollar ships are saying they cannot comply with the law and cannot do it. We might even have some U-boats on the Great Lakes if we have a double standard, one for the big guys and one for the other guys.

Mr. TRAIN. That would be very unfortunate.

Mr. TRAXLER. There would still be a lot of pleasure boaters in Michigan who would have the holding tanks installed and would continue to use them, yet as they watch the 650-foot Great Lakes ore carrier going back it would be painful for them.

Mr. AGEE. There is one thing I would like to add there. If the Administrator comes and promulgates a regulation which provides for flow-through treatment devices, a State still has the option of coming in under the law and certifying to the Administrator that pump-out facilities are available and thus the State could maintain their holding tank regulation, if they certify the holding tanks are available, the Administrator can permit the State to go that way.

Mr. TRAXLER. If the State said, "We have pump-out facilities," you would say, "That is all right for the pleasure boaters, but not for commercial." The Coast Guard is looking out for the shipping interests.

Mr. AGEE. That is true.

DRINKING WATER STANDARDS

Mr. TALCOTT. You have some Federal regulations you are promulgating concerning drinking water standards. You are inviting comments right now. One of the concerns that some people have is that the cost estimates for implementation of these standards appear to be unreasonably low. It appears that the actual costs are underestimated by several orders of magnitude.

Total replacement value of all community water systems in the United States is close to $600 billion. If substantial treatment is required in only 25 percent of the basins, costs will be $25 billion, a staggering sum even as compared to the $18 billion for waste water treatment plants in the United States.

This does not include additional costs for operation and maintenance of the new treatment facilities or for monitoring as required by the regulations.

Monitoring alone could cost water consumers a total of $600 million per year. I am wondering if you are making a bona fide appraisal of the economic impact, so that you can honestly tell the American public how much this program is going to cost them and how much more per quart the drinking water will cost if this is implemented.

Mr. TRAIN. Mr. Talcott, I think I can give you assurance on that score. These regulations we referred to as the interim primary drinking water regulations were proposed on March 15. These are required by that date by the Drinking Water Act which passed and became law in December. So that obviously we have had a relatively short period of time under the law in which to develop those proposals.

They have been now the subject of four major hearings around the country, including here in Washington.

They were held in Chicago, San Francisco, Boston, and Washington, as I said. We have had a great many comments and are continuing and doubtless will continue to receive further comments. We also have a Drinking Water Advisory Council made up largely of professionals in various aspects of the field who have been giving a great deal of attention to these regulations. They met here at our headquarters last week for 2 full days. I met with them on several occasions.

Mr. Quarles met with them on several occasions and Mr. Agee met with them the entire time.

We are taking a very close look at the requirements in the regulations. It is apparent that the States almost uniformly believe that the requirements for monitoring, for example, are too burdensome and unnecessarily demanding, and that this is in part a major reason for the rather high estimates of cost.

I have heard as much as $800 billion.

Mr. TALCOTT. For monitoring alone it was $600 million. This is a problem suggested by someone here today. On top of all the other burdens that local and State government have had to bear for sewage treatment and air pollution and all these other things, this could break the backs of many local communities. I think we have some responsibility to disclose how much it is really going to cost.

It is one thing to say we want to have high quality drinking water. We all do, but I think we should know what the cost is going to be when we start enforcing it.

ECONOMIC IMPACT STATEMENTS

I have one other question. One of your objectives is research and development in impact statements. I am wondering if you have done any impact statements on the economic impact of not doing something. In California we are going to have a referendum for a moratorium on

nuclear power development. I am wondering if it would be important to have an impact statement on not going ahead with nuclear power because the economic and social and environmental impact of not doing something may be far greater than doing it. This is one of my concerns with the development of nuclear power. The economic, social, and environmental impact may be far greater by not doing it than by going ahead of it. Do you do any of those reverse impact statements?

Mr. TRAIN. I cannot seem to identify one in my mind offhand. I suppose that from the economist's standpoint if you identify the economic benefits of a given project you could assume that those benefits at least would be foregone if the project were not pursued.

To that extent that would represent an economic cost. Of course, we do not do economic analyses in any event of a State of California moratorium proposal.

Mr. TALCOTT. Well, there is going to be a proposal on the ballot for a moratorium on nuclear development. Some of us believe that that moratorium may have adverse environmental impact as well as adverse economic impact.

I think somebody ought to be telling us the impact.

Mr. TRAIN. I think the State of California ought to undertake a good economic analysis of the cost of such a moratorium and make that information public.

Mr. TALCOTT. That would not be in your jurisdiction?

Mr. TRAIN. No, sir. I would like to add on the drinking water matter that we share your concern, and I said so publicly last year, over any unnecessary requirements in our regulations.

It is my firm belief that these will undergo considerable modification before they are finally promulgated in June. We are looking for the best advice we can get around the country helping us revise the regulations.

Mr. TALCOTT. I cannot commend you and your organization highly enough for one of the most difficult, most delicate, and most important jobs in Government. Obviously you are not going to please everybody but I want to commend you for doing a superb job.

Mr. TRAIN. Thank you.

PERMIT PROGRAM

Mr. BOLAND. Mr. Administrator, on page 7 of your statement you mention the completion of the initial issuance of national pollutant discharge elimination system permits. You said the permits are the mechanism for imposing on dischargers the uniform national effluent limitations and national performance standards which EPA is required to promulgate. We understand the deadline for issuing these was December 31 of last year, is that correct?

Mr. TRAIN. Yes, sir, it was last year.

We have not quite made the deadline. That is the way the law is written.

Mr. BOLAND. There was no way in which you were able to issue all permits by that deadline, was there?

Mr. TRAIN. Absolutely. That could have been predicted at the time of the adoption of the legislation.

Mr. BOLAND. Why are you reducing the funds in this program from $24.1 million to $21.3 million and reprograming 146 positions out of this program?

Mr. TRAIN. We have accomplished the largest proportion of the permitting of major sources. Second, we have proceeded to delegate the permit authority to States to the extent that by the end of this calendar year we will have delegated to about 30 States. So the process of further permitting, survillance, and enforcement to a very great extent in those cases will have been passed on to the States. For this reason we feel we can both reduce funding at the Federal level as well as staffing and have reprogramed the numbers that you have mentioned in the other areas, primarily construction grants.

OMB REQUEST

Mr. BOLAND. Will you place in the record at this point your request to OMB by activity in dollars and positions for fiscal year 1976?

[The information follows:]

1976 OMB REQUEST

[In thousands of dollars]

	1976 OMB request	
	Positions	Amount
Air	1,772	$189,807.8
Water quality	3,299	276,965.9
Water supply	299	32,854.3
Solid wastes	200	19,129.6
Pesticides	1,024	50,684.4
Radiation	233	6,090.2
Noise	96	7,802.4
Interdisciplinary	261	19,361.8
Toxic substances	44	8,838.9
Energy	55	166,000.0
Repairs and improvements		3,000.0
Program management and support	589	74,279.7
Agency and regional management	1,865	66,700.0
Scientific activities overseas		6,000.0
Subtotal	9,737	927,515.0
Advances, reimbursements, allocations	121	
Total	9,858	927,515.0

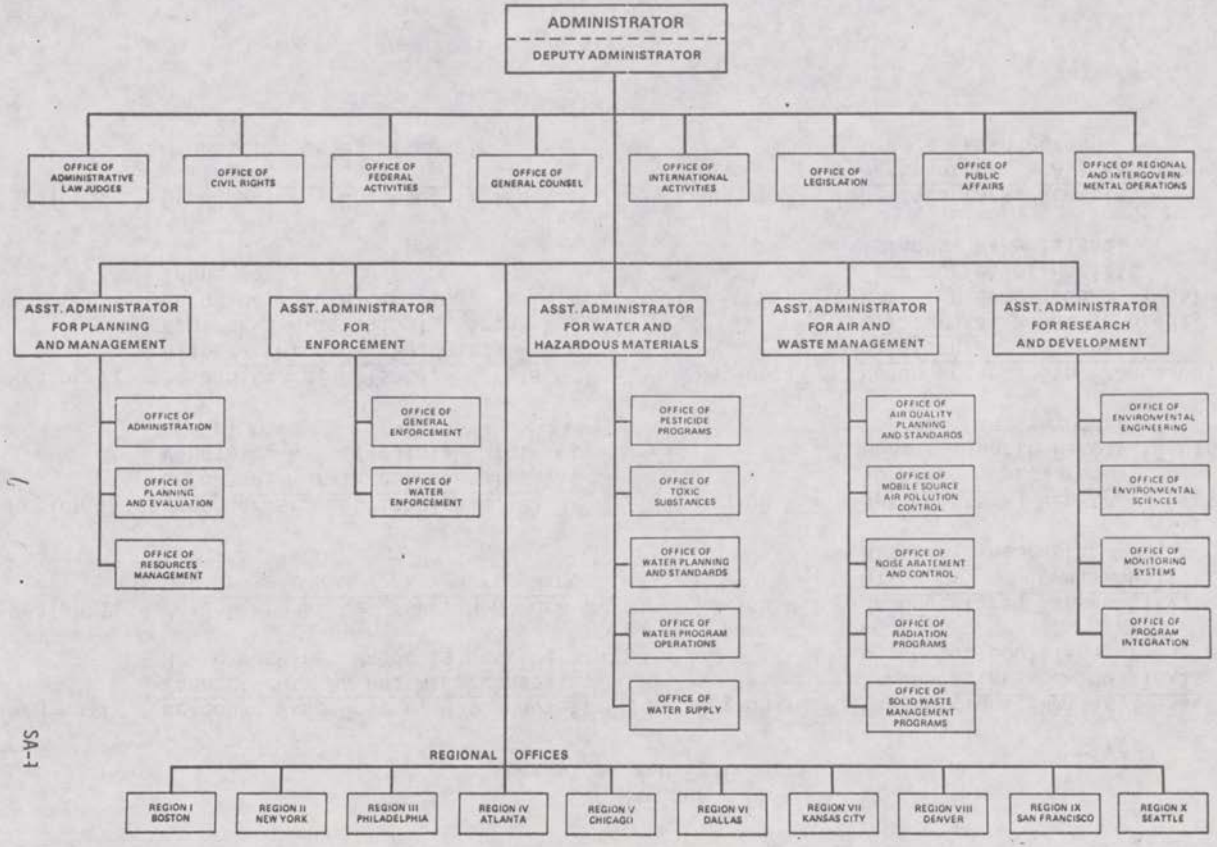
SPECIAL ANALYSIS BUDGET TABLES

Mr. BOLAND. At this point place in the record the summary tables and pages SA-1 through SA-15. This gives the overall summary for the budget requirements for 1974, 1975, and 1976.

Before page SA-8, place a comparable table of the positions and budget authority for 1974 so that we will have the comparison by media and appropriation for the three years and also for the transition period.

[The material follows:]

U.S. ENVIRONMENTAL PROTECTION AGENCY



EPA Regions
Locations and States

Region I	Headquarters, Boston, Massachusetts Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	Region VI	Headquarters, Dallas, Texas Arkansas, New Mexico, Texas Oklahoma, Louisiana
Region II	Headquarters, New York, New York New Jersey, New York, Puerto Rico, Virgin Islands	Region VII	Headquarters, Kansas City, Missouri Iowa, Kansas, Missouri, Nebraska
Region III	Headquarters, Philadelphia, Pa. Delaware, Maryland, Pennsylvania, Virginia, West Virginia, District of Columbia	Region VIII	Headquarters, Denver, Colorado Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming
Region IV	Headquarters, Atlanta, Georgia Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee	Region IX	Headquarters, San Francisco, California Arizona, California, Hawaii, Nevada, American Samoa, Guam, Trust Territories of Pacific Islands, Wake Island
Region V	Headquarters, Chicago, Illinois Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin	Region X	Headquarters, Seattle, Washington Alaska, Idaho, Oregon, Washington

AGENCY AND REGIONAL MANAGEMENT

Program and Financing (in thousands of dollars)

	Identification code 20-00-0105-0-1-304	1974 actual	1975 est.	1976 est.
	Program by activities:			
	Direct program:			
	Executive direction staff and administrative support	49,731	59,107	65,700
	Reimbursable program	74	500	500
10	Total program costs, funded—obligations	49,805	59,607	66,200
	Financing:			
11	Receipts and reimbursements from: Federal funds	−74	−500	−500
25	Unobligated balance lapsing	5,963	.....	.....
	Budget authority	**55,694**	**59,107**	**65,700**
	Budget authority:			
40	Appropriation	55,775	56,016	65,700
41	Transferred to other accounts	−447	.....	.....
42	Transferred from other accounts	366	1,891	.....
43	Appropriation (adjusted)	55,694	57,907	65,700
44.20	Proposed supplemental for civilian pay raises	.....	1,184	.....
44.30	Proposed supplemental for military pay raises	.....	16	.....
	Relation of obligations to outlays:			
71	Obligations incurred, net	49,731	59,107	65,700
72	Obligated balance, start of year	5,771	7,208	9,165
74	Obligated balance, end of year	−7,208	−9,165	−11,865
77	Adjustments in expired accounts	−141	.....	.....
90	Outlays, excluding pay raise supplemental	48,153	56,000	62,950
91.20	Outlays for civilian pay raise supplemental	.....	1,134	50
91.30	Outlays for military pay raise supplemental	.....	16	.....

Object Classification (in thousands of dollars)

	Identification code 20-00-0105-0-1-304	1974 actual	1975 est.	1976 est.
	Personnel compensation:			
11.1	Permanent positions	28,540	30,550	31,058
11.3	Positions other than permanent	2,244	2,337	2,368
11.5	Other personnel compensation	603	600	600
	Total personnel compensation	31,387	33,487	34,026
12.1	Personnel benefits: Civilian	2,662	2,828	2,875
13.0	Benefits for former personnel	1	1	1
21.0	Travel and transportation of persons	1,553	1,634	1,750
22.0	Transportation of things	71	80	80
23.0	Rent, communications, and utilities	3,902	7,725	8,714
24.0	Printing and reproduction	474	480	480
25.0	Other services	8,550	12,683	17,540
26.0	Supplies and materials	547	580	620
31.0	Equipment	581	109	114
32.0	Lands and structures	52	.....	.....
41.0	Grants, subsidies, and contributions	22	.....	.....
42.0	Insurance claims and indemnities	3	.....	.....
99.0	Total obligations	49,805	59,607	66,200

Personnel Summary

Total number of permanent positions	1,824	1,826	1,840
Full-time equivalent of other positions	250	250	250
Average paid employment	2,009	2,058	2,064
Average GS grade	9.53	9.53	9.53
Average GS salary	$16,222	$16,352	$16,482
Average salary of ungraded positions	$5,469	$5,469	$5,469

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ENERGY RESEARCH AND DEVELOPMENT

Program and Financing (in thousands of dollars)

Identification code 20-00-0109-0-1-304	1974 actual	1975 est.	1976 est.
Program by activities:			
Processes, effects, and control technology (obligations)	---------	110,000	125,000
Reimbursable program	---------	200	200
10 Total program costs, funded obligations	---------	110,200	125,200
Financing:			
11 Receipts and reimbursements from: Federal funds	---------	−200	−200
21 Unobligated balance available, start of year	---------	---------	−24,000
24 Unobligated balance available, end of year	---------	24,000	11,000
40 **Budget authority (appropriation)**	---------	**134,000**	**112,000**
Relation of obligations to outlays:			
71 Obligations incurred, net	---------	110,000	125,000
72 Obligated balance, start of year	---------	---------	78,000
74 Obligated balance, end of year	---------	−78,000	−90,000
90 Outlays	---------	32,000	113,000

Object Classification (in thousands of dollars)

Identification code 20-00-0109-0-1-304	1974 actual	1975 est.	1976 est.
11.1 Personnel compensation: Permanent positions	---------	---------	396
12.1 Personnel benefits: Civilian	---------	---------	37
21.0 Travel and transportation of persons	---------	438	438
22.0 Transportation of things	---------	20	20
23.0 Rent, communications, and utilities	---------	1,485	1,500
24.0 Printing and reproduction	---------	200	300
25.0 Other services	---------	75,327	85,729
26.0 Supplies and materials	---------	1,330	1,380
31.0 Equipment	---------	400	400
41.0 Grants, subsidies, and contributions	---------	31,000	35,000
99.0 Total obligations	---------	110,200	125,200

Personnel Summary

Total number of permanent positions	---------	---------	40
Full-time equivalent of other positions	---------	---------	10
Average paid employment	---------	---------	34
Average GS grade	---------	---------	9.53
Average GS salary	---------	---------	$16,182
Average salary of ungraded positions	---------	---------	$5,469

Research and Development

Program and Financing (in thousands of dollars)

	Identification code 20-00-0107-0-1-304	1974 actual	1975 est.	1976 est.
	Program by activities:			
	Direct program:			
	Pollution processes effects, and control technology	160,396	167,015	165,400
	Reimbursable program	1,160	3,800	3,800
10	Total program costs, funded obligations	161,556	170,815	169,200
	Financing:			
11	Receipts and reimbursements from: Federal funds	−1,160	−3,800	−3,800
17	Recovery of prior year obligations	−258	----------	----------
21	Unobligated balance available, start of year	−18,396	−17,667	−20,809
24	Unobligated balance available, end of year	17,667	20,809	18,809
25	Unobligated balance lapsing	18	----------	----------
	Budget authority	**159,427**	**170,157**	**163,400**
	Budget authority:			
40	Appropriation	159,560	170,638	163,400
41	Transferred to other accounts	−470	−481	----------
42	Transferred from other accounts	337	----------	----------
43	**Appropriation (adjusted)**	**159,427**	**170,157**	**163,400**
	Relation of obligations to outlays:			
71	Obligations, incurred, net	160,138	167,015	167,400
72	Obligated balance, start of year	93,771	137,413	143,428
74	Obligated balance, end of year	−137,413	−143,428	−141,828
90	Outlays	116,496	161,000	167,000

Note.—Excludes $9,915 thousand in 1974 and $5,030 thousand in 1975 for activities transferred to Operating expenses, Energy Research and Development Administration pursuant to Public Law 93-438.

Object Classification (in thousands of dollars)

Identification code 20-00-0107-0-1-304	1974 actual	1975 est.	1976 est.
ENVIRONMENTAL PROTECTION AGENCY			
Personnel compensation:			
11.1 Permanent positions	31,082	34,511	34,615
11.3 Positions other than permanent	2,500	2,604	2,638
11.5 Other personnel compensation	581	550	550
Total personnel compensation	34,163	37,665	37,803
12.1 Personnel benefits: Civilian	3,427	3,790	3,790
13.0 Benefits for former personnel	104	100	100
21.0 Travel and transportation of persons	2,868	2,376	2,600
22.0 Transportation of things	509	498	550
23.0 Rent, communications, and utilities	4,929	6,454	6,914
24.0 Printing and reproduction	963	887	1,000
25.0 Other services	71,487	76,409	66,837
26.0 Supplies and materials	3,829	3,949	4,046
31.0 Equipment	6,148	1,500	1,560
32.0 Lands and structures	286	----------	----------
41.0 Grants, subsidies, and contributions	28,989	31,050	38,000
42.0 Insurance claims and indemnities	12	----------	----------
Total obligations, Environmental Protection Agency	157,705	164,678	163,200
ALLOCATION ACCOUNTS			
21.0 Travel and transportation of persons	36	36	----------
22.0 Transportation of things	16	16	----------
23.0 Rent, communications, and utilities	37	35	----------
24.0 Printing and reproduction	1	1	----------
25.0 Other services	2,834	5,700	6,000
26.0 Supplies and materials	380	130	----------
31.0 Equipment	541	213	----------
32.0 Lands and structures	6	6	----------
Total obligations, allocation accounts	3,851	6,137	6,000
99.0 Total obligations	161,556	170,815	169,200
Obligations are distributed as follows:			
Environmental Protection Agency	157,705	164,678	163,200
National Science Foundation	1,300	15	----------
Department of Health, Education, and Welfare; Food and Drug Administration	2,551	6,122	6,000

Personnel Summary

Total number of permanent positions	1,813	1,949	1,864
Full-time equivalent of other positions	227	227	227
Average paid employment	2,031	2,156	2,127
Average GS grade	9.53	9.53	9.53
Average GS salary	$16,222	$16,352	$16,482
Average salary of ungraded positions	$5,469	$5,469	$5,469

Abatement and Control

Program and Financing (in thousands of dollars)

Identification code 20-00-0108-0-1-304		1974 actual	1975 est.	1976 est.
	Program by activities:			
	Direct program:			
	Standards setting, planning assistance, and training	255,787	395,488	346,700
	Reimbursable program	2,357	1,500	1,500
10	Total program costs, funded—obligations	258,144	396,988	348,200
	Financing:			
11	Receipts and reimbursements from: Federal funds	−2,357	−1,500	−1,500
17	Recoveries of prior year obligations	−268	----------	----------
21	Unobligated balance available, start of year: Appropriation	−21,653	−35,311	−38,311
24	Unobligated balance available, end of year: Appropriation	35,311	38,311	31,311
	Unobligated balance lapsing:			
25.40	Appropriation	45	----------	----------
25.49	Contract authority	86,795	30,000	----------
25	Unobligated balance restored: Appropriation	−2	----------	----------
	Budget authority	**356,015**	**428,488**	**339,700**
	Budget authority:			
	Current:			
40	Appropriation	275,700	302,801	404,700
40.49	Portion applied to liquidate contract authority	−4,000	−26,000	−65,000
41	Transferred to other accounts	−15,917	−913	----------
42	Transferred from other accounts	232	----------	----------
43	**Appropriation (adjusted)**	**256,015**	**275,888**	**339,700**
44.20	**Proposed supplemental for civilian pay raises**	----------	**2,450**	----------
44.30	**Proposed supplemental for military pay raises**	----------	**150**	----------
49	**Contract authority**	**100,000**	----------	----------
	Permanent:			
69	**Contract authority**	----------	**150,000**	----------
	Relation of obligations to outlays:			
71	Obligations, incurred, net	255,518	395,488	346,700
	Obligated balance, start of year:			
72.40	Appropriation	79,836	132,778	157,766
72.49	Contract authority	----------	9,205	103,205
	Obligated balance, end of year:			
74.40	Appropriation	−132,778	−157,766	−217,466
74.49	Contract authority	−9,205	−103,205	−38,205
90	Outlays, excluding pay raise supplemental	193,371	274,000	351,900
91.20	Outlays for civilian pay raise supplemental	----------	2,350	100
91.30	Outlays for military pay raise supplemental	----------	150	----------

Status of Unfunded Contract Authority (in thousands of dollars)

Unfunded balance, start of year	----------	9,205	103,205
Contract authority	100,000	150,000	----------
Administrative cancellation of unfunded balance	−86,795	−30,000	----------
Unfunded balance, end of year	−9,205	−103,205	−38,205
Appropriation to liquidate contract authority	4,000	26,000	65,000

Object Classification (in thousands of dollars)

Identification code 20-00-0108-0-1-304	1974 actual	1975 est.	1976 est.
ENVIRONMENTAL PROTECTION AGENCY			
Personnel compensation:			
11.1 Permanent positions	55,471	63,106	65,510
11.3 Positions other than permanent	3,910	4,072	4,126
11.5 Other personnel compensation	1,065	1,010	1,045
Total personnel compensation	60,446	68,188	70,681
12.1 Personnel benefits: Civilian	5,786	6,516	6,755
13.0 Benefits for former personnel	91	90	90
21.0 Travel and transportation of persons	4,874	5,510	5,800
22.0 Transportation of things	438	415	415
23.0 Rent, communications, and utilities	9,443	15,800	16,200
24.0 Printing and reproduction	1,565	1,600	1,900
25.0 Other services	56,869	76,508	82,489
26.0 Supplies and materials	2,680	2,940	3,000
31.0 Equipment	3,375	3,380	3,432
32.0 Lands and structures	107	----------	----------
41.0 Grants, subsidies, and contributions	112,448	216,041	157,438
42.0 Insurance claims and indemnities	12	----------	----------
Total obligations, Environmental Protection Agency	258,134	396,988	348,200
ALLOCATION TO DEPARTMENT OF AGRICULTURE			
25.0 Other services	10	----------	----------
99.0 Total obligations	258,144	396,988	348,200

Personnel Summary

Total number of permanent positions	3,889	3,815	4,034
Full-time equivalent of other positions	488	488	488
Average paid employment	3,927	4,245	4,337
Average GS grade	9.53	9.53	9.53
Average GS salary	$16,222	$16,352	$16,482
Average salary of ungraded positions	$5,469	$5,469	$5,469

ENFORCEMENT

Program and Financing (in thousands of dollars)

Identification code 20-00-0106-0-1-304	1974 actual	1975 est.	1976 est.
Program by activities:			
10 Standards, permits, enforcement and legal counsel costs—obligations	46,437	53,430	53,900
Financing:			
21 Unobligated balance available, start of year	−2,000	−587	----------
24 Unobligated balance available, end of year	587	----------	----------
25 Unobligated balance lapsing	788	----------	----------
Budget authority	**45,812**	**52,843**	**53,900**
Budget authority:			
40 Appropriation	47,150	52,240	53,900
41 Transferred to other accounts	−1,338	−497	----------
43 **Appropriation (adjusted)**	**45,812**	**51,743**	**53,900**
44.20 **Proposed supplemental for civilian pay raises**	----------	**1,086**	----------
44.30 **Proposed supplemental for military pay raises**	----------	**14**	----------
Relation of obligations to outlays:			
71 Obligations incurred, net	46,437	53,430	53,900
72 Obligated balance, start of year	5,721	13,706	17,086
74 Obligated balance, end of year	−13,706	−17,086	−16,986
77 Adjustments in expired accounts	−252	----------	----------
90 Outlays, excluding pay raise supplemental	38,200	49,000	53,950
91.20 Outlays for civilian pay raise supplemental	----------	1,036	50
91.30 Outlays for military pay raise supplemental	----------	14	----------

Object Classification (in thousands of dollars)

Identification code 20-00-0106-0-1-304	1974 actual	1975 est.	1976 est.
Personnel compensation:			
11.1 Permanent positions	22,273	23,660	23,487
11.3 Positions other than permanent	1,211	1,261	1,278
11.5 Other personnel compensation	278	250	250
Total personnel compensation	23,762	25,171	25,015
12.1 Personnel benefits: Civilian	2,172	2,293	2,278
21.0 Travel and transportation of persons	2,360	1,923	2,100
22.0 Transportation of things	166	165	165
23.0 Rent, communications, and utilities	4,066	5,590	5,640
24.0 Printing and reproduction	655	690	700
25.0 Other services	9,078	12,746	13,637
26.0 Supplies and materials	1,252	1,255	1,255
31.0 Equipment	2,527	3,197	2,610
32.0 Lands and structures	48	----------	----------
41.0 Grants, subsidies, and contributions	349	400	500
42.0 Insurance claims and indemnities	2	----------	----------
99.0 Total obligations	46,437	53,430	53,900

Personnel Summary

Total number of permanent positions	1,578	1,597	1,506
Full-time equivalent of other positions	114	114	114
Average paid employment	1,664	1,695	1,663
Average GS grade	9.53	9.53	9.53
Average GS salary	$16,222	$16,352	$16,482
Average salary of ungraded positions	$5,469	$5,469	$5,469

BUILDINGS AND FACILITIES

Program and Financing (in thousands of dollars)

Identification code 20-00-0110-0-1-304	1974 actual	1975 est.	1976 est.
Program by activities:			
10 Repairs, improvements, alterations and construction (costs—obligations)	---------	1,400	2,100
Financing:			
40 Budget authority (appropriation)	---------	1,400	2,100
Relation of obligations to outlays:			
71 Obligations, incurred, net	---------	1,400	2,100
72 Obligated balance, start of year	---------	---------	1,100
74 Obligated balance, end of year	---------	−1,100	−1,700
90 Outlays	---------	300	1,500

Object Classification (in thousands of dollars)

Identification code 20-00-0110-0-1-304	1974 actual	1975 est.	1976 est.
21.0 Travel and transportation of persons	---------	---------	51
24.0 Printing and reproduction	---------	6	10
25.0 Other services	---------	1,394	2,039
99.0 Total obligations	---------	1,400	2,100

CONSTRUCTION GRANTS

Program and Financing (in thousands of dollars)

Identification code 20-00-0103-0-1-304		1974 actual	1975 est.	1976 est.
	Program by activities:			
10	Waste treatment works construction (costs—obligations) (object class 41.0)	2,790,681	4,201,555	5,200,000
	Financing:			
17	Recovery of prior year obligations	−121,561	----------	----------
	Unobligated balances available, start of year:			
21.40	Appropriation	−1,928,669	−701,555	----------
21.49	Contract authority	−3,468,952	−7,358,288	−7,258,088
	Unobligated balance available, end of year:			
24.40	Appropriation	701,555	----------	----------
24.49	Contract authority	7,358,288	7,258,088	2,058,088
25.49	Unobligated balance lapsing	2,428	----------	----------
	Budget authority	**5,333,770**	**3,399,800**	----------
	Budget authority:			
40	Appropriation	600,000	1,400,000	500,000
40.49	Portion applied to liquidate contract authority	−600,000	−1,400,000	−500,000
43	**Appropriation (adjusted)**	----------	----------	----------
49	**Contract authority**	**5,333,770**	**3,399,800**	----------
	Relation of obligation to outlays:			
71	Obligations incurred, net	2,669,120	4,201,555	5,200,000
	Obligated balance, start of year:			
72.40	Appropriation	2,487,348	2,317,430	1,418,985
72.49	Contract authority	1,531,048	2,816,665	5,616,665
	Obligated balance, end of year:			
74.40	Appropriation	−2,317,430	−1,418,985	−718,985
74.49	Contract authority	−2,816,665	−5,616,665	−9,216,665
90	Outlays	1,553,421	2,300,000	2,300,000

Status of Unfunded Contract Authority (in thousands of dollars)

Unfunded balance, start of year	5,000,000	9,733,770	11,733,570
Contract authority	5,333,770	3,399,800	----------
Unfunded balance, end of year	−9,733,770	−11,733,570	−11,233,570
Appropriation to liquidate contract authority	600,000	1,400,000	500,000

SCIENTIFIC ACTIVITIES OVERSEAS

Program and Financing (in thousands of dollars)

Identification code 20-00-0104-0-1-304	1974 actual	1975 est.	1976 est.
Program by activity:			
10 Foreign environmental pollution research (cost—obligations)	3,990	1,441	6,000
Financing:			
17 Recovery of prior year obligations	---------	---------	---------
21 Unobligated balance available, start of year	−3,431	−1,441	---------
24 Unobligated balance available, end of year	1,441	---------	---------
40 **Budget authority (appropriation)**	**2,000**	---------	**6,000**
Relation of obligations to outlays:			
71 Obligations incurred, net	3,990	1,441	6,000
72 Obligated balance, start of year	6,757	7,637	5,478
74 Obligated balance, end of year	−7,637	−5,478	−7,478
90 Outlays	3,110	3,600	4,000

Object Classification (in thousands of dollars)

Identification code 20-00-0104-0-1-304	1974 actual	1975 est.	1976 est.
ENVIRONMENTAL PROTECTION AGENCY			
21.0 Travel and transportation of persons	43	---------	51
25.0 Other services	3,947	1,416	5,924
Total obligations, Environmental Protection Agency	3,990	1,416	5,975
ALLOCATION TO NATIONAL SCIENCE FOUNDATION			
25.0 Other services	---------	25	25
99.0 Total obligations	3,990	1,441	6,000

Summary of Resources

	1974	1975	1976	Increase or Decrease
Research and Development				
Budget authority.....	$159,427,742	$169,229,500	$162,631,600	-$6,597,900
Obligations.....	160,396,086	166,087,500	164,631,600	-1,455,900
Outlays.....	116,496,174	161,000,000	167,000,000	+6,000,000
End-of-year employment.....	1,786	1,834	1,779	-55
Abatement and Control				
Budget authority.....	256,014,845	279,225,700	339,547,900	+60,322,200
Contract authority.....	100,000,000 a/	150,000,000 b/	...	-150,000,000
Obligations.....	242,582,343	276,225,700	346,547,900	+70,322,200
Contract authority.....	13,204,570	120,000,000	...	-120,000,000
Outlays.....	189,371,385	250,500,000	287,000,000	+36,500,000
Contract authority.....	4,000,000	26,000,000	65,000,000	+39,000,000
End-of-year employment....	3,770	3,798	3,998	+200
Enforcement				
Budget authority.....	45,812,522	51,670,300	53,162,000	+1,491,700
Obligations.....	46,436,885	52,257,472	53,162,000	+904,528
Outlays.....	38,200,909	50,050,000	54,000,000	+3,950,000
End-of-year employment...	1,578	1,597	1,525	-72

	1974	1975	1976	Increase or Decrease
Agency and Regional Management				
Budget authority.....	55,693,902	60,469,500	67,358,500	+6,889,000
Obligations.....	49,731,148	60,469,500	67,358,500	+6,889,000
Outlays.....	48,153,164	57,150,000	63,000,000	+5,850,000
End-of-year employment.....	1,824	1,823	1,837	+14
Energy Research and Development				
Budget authority.....	...	134,000,000	112,000,000	-22,000,000
Obligations.....	...	110,000,000	125,000,000	+15,000,000
Outlays.....	...	32,000,000	113,000,000	+81,000,000
End-of-year employment.....	...	...	40	+40
Buildings and Facilities				
Budget authority.....	...	1,400,000	2,100,000	+700,000
Obligations.....	...	1,400,000	2,100,000	+700,000
Outlays.....	...	300,000	1,500,000	+1,200,000
End-of-year employment.....	...	...	...	...
Construction Grants				
Budget authority.....	...	...	...	...
Contract authority.....	4,000,000,000	9,000,000,000 c/	...	-9,000,000,000
Obligations.....	1,297,658,814	701,555,358	...	-701,555,358
Contract authority.....	1,493,022,582	3,500,000,000	5,600,000,000	+2,100,000,000
Outlays.....	1,394,604,501	1,600,000,000	700,000,000	-900,000,000
Contract authority.....	158,816,668	700,000,000	1,650,000,000	+950,000,000
End-of-year employment.....	...	...	...	...

	1974	1975	1976	Increase or Decrease
Scientific Activities Overseas				
Budget authority	2,000,000	...	6,000,000	+6,000,000
Obligations	3,990,573	1,440,635	6,000,000	+4,559,365
Outlays	3,109,746	3,600,000	4,000,000	+400,000
End-of-year employment	...	...	...	...
Operations, Research and Facilities				
Budget authority	...	...	...	...
Obligations	9,056,989	18,366,217	...	-18,366,217
Outlays	77,237,138	56,000,000	25,000,000	-31,000,000
End-of-year employment	83	...	...	...
Revolving Fund				
Budget authority	...	...	...	...
Obligations	624,773	508,712	500,000	-8,712
Outlays	187,295	60,000	50,000	-10,000
End-of-year employment	...	...	...	...
Trust Funds				
Budget authority	-4,871	...	...	...
Obligations	3,697	56,623	...	-56,623
Outlays	2,272	36,000	24,000	-12,000
End-of-year employment	...	...	...	...

	1974	1975	1976	Increase or Decrease
Reimbursements d/				
Budget authority.....	...	...	...	...
Obligations.....	3,591,725	6,000,000	6,000,000	...
Outlays.....	...	...	...	...
End-of-year employment.....	146	135	105	-30
Advances and Allocations Accounts				
Budget Authority.....	...	...	...	...
Obligations.....	...	...	...	...
Outlays.....	...	...	...	...
End-of-year employment.....	16	16	16	...
Consolidated Working Fund				
Budget authority.....	...	...	...	...
Obligations.....	573,827	255,026	...	-255,026
Outlays.....	188,356	304,000	439,000	+135,000
End-of-year employment.....	...	...	...	...
Total, Environmental Protection Agency				
Budget authority.....	518,944,140	695,995,000	742,800,000	+46,805,000
Contract authority.....	4,100,000,000	9,150,000,000	...	-9,150,000,000
Obligations.....	1,814,646,860	1,394,622,743	771,300,000	-623,322,743
Contract authority.....	1,506,227,152	3,620,000,000	5,600,000,000	+1,980,000,000
Outlays.....	1,867,550,940	2,211,000,000	1,415,013,000	-795,987,000
Contract authority.....	162,816,668	726,000,000	1,715,000,000	+989,000,000
End-of-year employment.....	9,203	9,203	9,300	+97

a/ Section 208 Areawide Waste Treatment Management. $100 million contract authority authorized for 1974 of which $86,795,000 was administratively cancelled.

b/ Section 208 Areawide Waste Treatment Management. $150 million contract authority authorized for 1975 of which $120 million is expected to be obligated.

c/ Includes $1,333,770,000 allotted earlier by Court Order but not made available for obligation until the Supreme Court decision of February 18, 1975.

d/ Included in the President's Budget under Research and Development, Abatement and Control, and Agency and Regional Management.

End-of-Year Employment and Budget Authority
By Media and Appropriation
1974
(dollars in thousands)

	Research and Development		Abatement and Control		Enforcement		Agency & Regional Management		Total	
	EOY	Amount	EOY	Amount	EOY	Amount	EOY	Amount	EOY	Amount
Air	446	$76,980.4	676	$80,641.7	313	$8,670.7	...	...	1,435	$166,292.8
Water Quality	637	42,629.6	1,691	205,949.2	952	22,094.8	...	...	3,280	270,673.6
(Appropriation)	(637)	(42,629.6)	(1,691)	(105,949.2)	(952)	(22,094.8)	...	...	(3,280)	(170,673.6)
(Contract Authority)	...	...	...	(100,000.0)	...	...	...	...	...	(100,000.0)
Water Supply	75	2,549.3	99	2,283.9	...	...	...	...	174	4,833.2
Solid Wastes	24	2,056.2	159	6,549.7	...	...	...	...	183	8,605.9
Pesticides	150	10,400.6	588	17,741.0	148	2,985.3	...	...	886	31,126.9
Radiation	82	2,252.7	201	4,928.0	...	...	...	...	283	7,180.7
Noise	3	516.1	35	3,514.5	1	20.0	...	...	39	4,050.6
Interdisciplinary	259	15,759.3	...	2.2	...	...	...	...	259	15,761.5
Toxic Substances	...	...	34	4,286.5	...	...	...	...	34	4,286.5
Program Management and Support	222	16,198.5	199	30,118.1	136	12,041.7	...	...	557	58,358.3
Agency and Regional Management	...	...	...	...	...	...	1,860	55,694.0	1,860	55,694.0
Subtotal	1,898	169,342.7	3,682	356,014.8	1,550	45,812.5	1,860	55,694.0	8,990	626,864.0
Energy Research and Development	...	...	...	...	...	...	...	...	...	...
Buildings and Facilities	...	...	...	...	...	...	...	...	...	...
Scientific Activities Overseas	...	...	...	...	...	...	...	...	...	2,000.0
Reimbursements	...	...	...	...	...	...	...	...	146	...
Revolving Fund	...	...	...	...	...	...	...	...	51	...
Advances and Allocations	...	...	...	...	...	...	...	...	16	...
Trust Funds	...	...	...	...	...	...	...	...	...	-5.0
Total	1,898	169,342.7	3,682	356,014.8	1,550	45,812.5	1,860	55,694.0	9,203	628,859.0
(Appropriation)	(1,898)	(169,342.7)	(3,682)	(256,014.8)	(1,550)	(45,812.5)	(1,860)	(55,694.0)	(9,203)	(528,859.0)*
(Contract Authority)	...	...	...	(100,000.0)	...	...	...	...	...	(100,000.0)

* 528,859.0	
+15,000.0	Transfer to Agriculture for REAP.
+ 2,236.0	Transfer to GSA for space.
+ 4,000.0	Portion of Sec. 208 contract authority which was appropriated.
+ 5.0	Trust fund reversal, to reconcile.
550,100.0	1974 appropriation

End-of-Year Employment and Budget Authority
By Media and Appropriation
1975
(dollars in thousands)

	Research and Development		Abatement and Control		Enforcement		Agency & Regional Management		Total	
	EOY	Amount	EOY	Amount	EOY	Amount	EOY	Amount	EOY	Amount
Air	456	$55,958.8	730	$87,317.3	404	$10,749.9	...	...	1,590	$154,026.0
Water Quality	588	46,373.2	1,664	261,190.8	890	24,064.8	...	...	3,142	331,628.8
(Appropriation)	(588)	(46,373.2)	(1,664)	(111,190.8)	(890)	(24,064.8)	...	...	(3,142)	(181,628.8)
(Contract Authority)	...	...	...	(150,000.0)	...	...	...	...	...	(150,000.0)
Water Supply	64	4,762.0	94	3,036.8	...	...	...	...	158	7,798.8
Solid Wastes	23	9,196.5	151	10,332.0	...	...	...	...	174	19,528.5
Pesticides	148	11,193.0	671	19,521.9	153	3,408.5	...	...	972	34,123.4
Radiation	72	2,637.7	191	4,569.9	...	...	...	...	263	7,207.6
Noise	3	544.9	55	4,889.0	1	21.3	...	...	59	5,455.2
Interdisciplinary	252	18,767.5	...	...	...	...	...	...	252	18,767.5
Toxic Substances	11	1,208.6	45	6,838.2	...	...	...	...	56	8,046.8
Program Management and Support	217	18,587.3	197	31,529.8	149	13,425.8	...	...	563	63,542.9
Agency and Regional Management	...	...	...	...	...	...	1,823	60,469.5	1,823	60,469.5
Subtotal	1,834	169,229.5	3,798	429,225.7	1,597	51,670.3	1,823	60,469.5	9,052	710,595.0
Energy Research and Development	...	...	...	...	...	...	...	...	...	134,000.0
Buildings and Facilities	...	...	...	...	...	...	...	...	...	1,400.0
Scientific Activities Overseas	...	...	...	...	...	...	...	...	...	...
Reimbursements	...	...	...	...	...	...	...	...	135	6,000.0
Revolving Fund	...	...	...	...	...	...	...	...	...	558.7
Advances and Allocations	...	...	...	...	...	...	...	...	13	...
Trust Funds	...	...	...	...	...	...	...	...	...	18.4
Total	1,834	169,229.5	3,798	429,225.7	1,597	51,670.3	1,823	60,469.5	9,200	852,572.1
(Appropriation)	(1,834)	(169,229.5)	(3,798)	(279,225.7)	(1,597)	(51,670.3)	(1,823)	(60,469.5)	(9,200)	(702,572.1)
(Contract Authority)	...	...	...	(150,000.0)	...	...	...	...	...	(150,000.0)

End-of-Year Employment and Budget Authority
By Media and Appropriation
1976
(dollars in thousands)

	Research and Development		Abatement and Control		Enforcement		Agency and Regional Management		Total	
	EOY	Amount	EOY	Amount	EOY	Amount	EOY	Amount	EOY	Amount
Air	454	$47,973.6	773	$77,235.1	444	$12,020.0	...	...	1,671	$137,228.7
Water Quality	581	44,892.4	1,729	144,521.9	744	21,293.5	...	...	3,054	210,707.8
(Appropriation)	(581)	(44,892.4)	(1,729)	(144,521.9)	(744)	(21,293.5)	...	...	(3,054)	(210,707.8)
(Contract Authority)	...	...	...	...	...	...	...	...	...	...
Water Supply	75	12,364.2	175	19,860.9	5	100.0	...	...	255	32,325.1
Solid Wastes	23	3,997.3	161	11,622.7	...	...	...	...	184	15,620.0
Pesticides	148	11,197.9	671	29,552.1	153	3,582.9	...	...	972	44,332.9
Radiation	57	1,640.0	174	4,337.1	...	...	...	...	231	5,977.1
Noise	1	45.0	75	9,592.2	10	521.7	...	...	86	10,158.9
Interdisciplinary	252	20,775.8	...	...	...	...	...	...	252	20,775.8
Toxic Substances	11	1,209.0	45	6,850.3	...	...	...	...	56	8,059.3
Program Management and Support	177	18,536.4	195	35,975.6	169	15,643.9	...	...	541	70,155.9
Agency and Regional Management	...	...	...	...	...	...	1,837	$67,358.5	1,837	67,358.5
Subtotal	1,779	162,631.6	3,998	339,547.9	1,525	53,162.0	1,837	67,358.5	9,139	622,700.0
Energy Research and Development	...	...	...	...	...	...	...	...	40	112,000.0
Buildings & Facilities	...	...	...	...	...	...	...	...	...	2,100.0
Scientific Activities Overseas	...	...	...	...	...	...	...	...	...	6,000.0
Reimbursements	...	...	...	...	...	...	...	...	105	6,000.0
Revolving Fund	...	...	...	...	...	...	...	...	...	500.0
Advances and Allocations	...	...	...	...	...	...	...	...	13	...
Total	1,779	162,631.6	3,998	339,547.9	1,525	53,162.0	1,837	67,358.5	9,297	749,300.0
(Appropriation)	(1,779)	(162,631.6)	(3,998)	(339,547.9)	(1,525)	(53,162.0)	(1,837)	(67,358.5)	(9,297)	(749,300.0)
(Contract Authority)	...	...	...	...	...	...	...	...	...	...

New Obligational Authority by Appropriation by Media for Transition Period
July 1, - September 30, 1976
(dollars in thousands)

	Research and Development		Abatement and Control		Enforcement		Agency and Regional Management		Other		Total	
	Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount	Pos.	Amount
Air	454	$12,625	773	$20,890	444	$3,120	...	...	...	...	1,671	$36,635
Water Quality	581	11,810	1,729	24,750	744	5,530	...	...	...	...	3,054	42,090
Water Supply	75	3,250	175	5,370	5	25	...	...	...	...	255	8,645
Solid Waste	23	1,050	161	3,140	...	...	...	...	...	...	184	4,190
Pesticides	148	2,950	671	8,000	153	930	...	...	...	...	972	11,880
Radiation	57	430	174	1,170	...	...	...	...	...	...	231	1,600
Interdisciplinary	252	5,465	...	...	...	...	...	...	...	...	252	5,465
Toxic Substances	11	318	45	1,850	...	...	...	...	...	...	56	2,168
Noise	1	12	75	2,600	10	135	...	...	...	...	86	2,747
Energy Research and Development	...	...	...	...	...	...	...	...	40	$21,000	40	21,000
Program Management and Support	177	4,890	195	9,730	169	4,060	...	...	...	...	541	18,680
Agency and Regional Management	...	...	...	...	...	...	1,837	$17,400	...	...	1,837	17,400
Subtotal	1,779	42,800	3,998	77,500	1,525	13,800	1,837	17,400	40	21,000	9,179	172,500
Buildings & Facilities	...	...	...	...	...	...	...	...	...	500	...	500
Scientific Activities Overseas	...	...	...	...	...	...	...	...	...	1,000	...	1,000
Construction Grants Contract Authority	...	...	...	...	...	...	...	...	...	...	...	...
Miscellaneous Trust Funds	...	...	...	...	...	...	...	...	...	...	...	...
Advances Reimbursements and Allocations	85	...	20	...	...	...	...	...	16	...	121	...
Subtotal	85	...	20	...	...	...	...	...	16	1,500	121	1,500
Total	1,864	42,800	4,018	77,500	1,525	13,800	1,837	17,400	56	22,500	9,300	174,000

Environmental Protection Agency

Total Funds Available, 1975

	1975			
	Budget Authority	Unobligated Balance Brought Forward	Unobligated Balance Carried Forward	Total Available
Research and Development	$169,229,500	$17,667,000	$20,809,000	$166,087,500
Air	55,958,800	7,310,300	7,017,100	56,252,000
Water Quality	46,373,200	3,793,700	2,833,100	47,333,800
Water Supply	4,762,000	53,900	76,900	4,739,000
Solid Wastes	9,196,500	2,685,800	6,282,300	5,600,000
Pesticides	11,193,000	...	446,000	10,747,000
Radiation	2,637,700	...	...	2,637,700
Noise	544,900	...	31,900	513,000
Interdisciplinary	18,767,500	2,949,600	3,221,100	18,496,000
Toxic Substances	1,208,600	...	600	1,208,000
Program Management and Support	18,587,300	873,700	900,000	18,561,000
Abatement and Control	279,225,700	35,311,061	38,311,000	276,225,761
Air	87,317,300	12,783,500	12,600,800	87,500,000
Water Quality	111,190,800	16,006,761	17,079,800	110,117,761
Water Supply	3,036,800	157,700	686,500	2,508,000
Solid Wastes	10,332,000	3,055,000	2,687,000	10,700,000
Pesticides	19,521,900	990,500	712,400	19,800,000
Radiation	4,569,900	468,400	138,300	4,900,000
Noise	4,889,000	171,200	460,200	4,600,000
Toxic Substances	6,838,200	330,100	2,968,300	4,200,000
Program Management and Support	31,529,800	1,347,900	977,700	31,900,000
Enforcement	51,670,300	587,172	...	52,257,472
Air	10,749,900	...	...	10,749,900

	1975			
	Budget Authority	Unobligated Balance Brought Forward	Unobligated Balance Carried Forward	Total Available
Water Quality.....	24,064,800	587,172	...	24,651,972
Pesticides.....	3,408,500	...	...	3,408,500
Noise.....	21,300	...	...	21,300
Program Management and Support..	13,425,800	...	...	13,425,800
Agency and Regional Management	60,469,500	...	...	60,469,500
Agency Management and Support...	49,262,700	...	...	49,262,700
Regional Management and Support.	11,206,800	...	...	11,206,800
Energy Research and Development	134,000,000	...	24,000,000	110,000,000
Buildings and Facilities	1,400,000	...	...	1,400,000
Scientific Activities Overseas	...	1,440,600	...	1,440,600
Construction Grants (Appropriation)	...	701,555,358	...	701,555,358
Operations, Research and Facilities	...	18,366,217	...	18,366,217
Subtotal.....	695,995,000	774,927,408	83,120,000	1,387,802,408
Contract Authority				
Construction Grants.....	9,000,000,000[a/]	7,358,288,069	12,858,288,069	3,500,000,000
Areawide Waste Treatment Management Grants.....	150,000,000	...	...	120,000,000[b/]
Total.....	9,845,995,000	8,133,215,477	12,941,408,069	5,007,802,408

a/ Available from 1976 authority. Includes $1,333,770,000 allotted earlier by Court Orders but not made available for obligation until the Supreme Court decision of 2/18/75.

b/ $30 million administratively cancelled.

Environmental Protection Agency

Total Funds Available, 1976

	1976			
	Budget Authority	Unobligated Balance Brought Forward	Unobligated Balance Carried Forward	Total Available
Research and Development	$162,631,600	$20,809,000	$18,809,000	$164,631,600
Air	47,973,600	7,017,100	6,711,100	48,279,600
Water Quality	44,892,400	2,833,100	1,900,000	45,825,500
Water Supply	12,364,200	76,900	2,341,100	10,100,000
Solid Wastes	3,997,300	6,282,300	2,179,600	8,100,000
Pesticides	11,197,900	446,000	743,900	10,900,000
Radiation	1,640,000	...	...	1,640,000
Noise	45,000	31,900	...	76,900
Interdisciplinary	20,775,800	3,221,100	4,596,900	19,400,000
Toxic Substances	1,209,000	600	...	1,209,600
Program Management and Support	18,536,400	900,000	336,400	19,100,000
Abatement and Control	339,547,900	38,311,000	31,311,000	346,547,900
Air	77,235,100	12,600,800	8,100,000	81,735,900
Water Quality	144,521,900	17,079,800	14,521,000	147,080,700
Water Supply	19,860,900	686,500	3,100,000	17,447,400
Solid Wastes	11,622,700	2,687,000	900,000	13,409,700
Pesticides	29,552,100	712,400	1,800,000	28,464,500
Radiation	4,337,100	138,300	150,000	4,325,400
Noise	9,592,200	460,200	570,000	9,482,400
Toxic Substances	6,850,300	2,968,300	1,600,000	8,218,600
Program Management and Support	35,975,600	977,700	570,000	36,383,300
Enforcement	53,162,000	...	...	53,162,000
Air	12,020,000	...	...	12,020,000

	1976			
	Budget Authority	Unobligated Balance Brought Forward	Unobligated Balance Carried Forward	Total Available
Water Quality	21,293,500	...	...	21,293,500
Water Supply	100,000	...	...	100,000
Pesticides	3,582,900	...	...	3,582,900
Noise	521,700	...	...	521,700
Program Management and Support	15,643,900	...	...	15,643,900
Agency and Regional Management	67,358,500	...	...	67,358,500
Agency Management and Support	56,034,900	...	...	56,034,900
Regional Management and Support	11,323,600	...	...	11,323,600
Energy, Research and Development	112,000,000	24,000,000	11,000,000	125,000,000
Buildings and Facilities	2,100,000	...	...	2,100,000
Scientific Activities Overseas	6,000,000	...	...	6,000,000
Operations, Research, and Facilities	...	...	...	...
Subtotal	742,800,000	83,120,000	61,120,000	764,800,000
Contract Authority:				
Construction Grants	...	12,858,288,069	7,258,288,069	5,600,000,000
Areawide Waste Treatment Management Grants	...	...	...	...
Total	742,800,000	12,941,408,069	7,319,408,069	6,364,800,000

EXTENSION OF AUTHORIZATIONS

Mr. BOLAND. What programs, and what parts of your budget program require extension or new authorization by July 1? You may provide that for the record.

[The information follows:]

ENVIRONMENTAL PROTECTION AGENCY
Authorization Requirements - 1976
(in thousands of dollars)

	R&D		A&C		Enforcement		Energy R&D		Total	
	Pos.	Budget Authority	Pos.	Budget Authority	Pos.	Budget Authority	Pos.	Budget Authority	Pos.	Budget Authority
Federal Water Pollution Control Act, as amended.....	676	$53,066	1,655	$142,270	744	$21,293	...	$21,100	3,075	$237,729
Marine Protection Research and Sanctuaries Act of 1972.....	...	...	23	1,260	...	...	...	...	23	1,260
Clean Air Act, as amended.....	610	56,995	754	77,480	444	12,021	...	81,200	1,808	227,696
Solid Waste Disposal Act, as amended.....	27	4,334	161	11,622	...	...	...	5,700	188	21,656
Noise Control Act of 1972.....	1	110	75	9,592	10	522	...	...	86	10,224
Federal Insecticide, Fungicide, and Rodenticide Act, as amended..	152	14,048	675	30,237	153	3,583	...	...	980	47,868
Total.....	1,466	$128,553	3,343	$272,461	1,351	$37,419	...	$108,000	6,160	$546,433

ENVIRONMENTAL PROTECTION AGENCY
Authorization Requirements - 1976
(in thousands of dollars)

Federal Water Pollution Control Act, as amended	Positions	Budget Authority
Section 104 - Research, Investigations, Training, and Information:		
Section 104(g)(1), Pilot Training Program	12	$1,382
Section 104(g)(2), Forecasting Manpower Needs	12	266
Section 104(p), Agricultural Pollution	26	2,776
Section 104(r), Fresh Water Aquatic Ecosystems	...	...
Section 104(t), Thermal Discharges	...	a/
Section 104(u)(1), All Other	1,052	77,908
Section 105 - Grants for Research and Development:		
Section 105(h), General Authorization	...	7,907
Section 106 - Grants for Pollution Control Programs	...	34,375
Sections 109-112 - Training Grants, Contracts, and Scholarships	...	331
Section 113 - Alaska Village Demonstration Projects	...	316
Section 208 - Areawide Waste Treatment Management:		
Section 208(f), Grants (Contract Authority) b/	...	$53,000
Section 314 - Clean Lakes	...	...
Section 517 - General Authorization	1,973	59,468
Primary Sections Applicable / Major Purpose		
102 / Planning grants	...	...
102, 208 & 303 / Planning	201	6,349
106 / Control agency administration	25	551
201, 203, 205, 210, 304 & 307 / Construction grants operations maintenance and administration	646	13,400

		Positions	Budget Authority
301	Municipal permits.....	71	1,607
301, 302, 304 306 & 515	Industrial waste studies and guidelines.....	45	6,999
303	Water Quality Standards.....	20	466
304(c) & 312	Non-point source studies and guidelines.....	27	1,607
313	Federal activities.....	54	1,081
311 & 307	Spill prevention and response.....	140	6,115
301, 308, 309, 310 318, 311, 504, 505	Enforcement.....	460	11,644
304, 401, 402, 403 404, & 405	Permit program.....	284	9,649
	Total.....	3,075	237,729 c/

a/ Activities being conducted in concert with other research programs authorized by Section 104(u)(1) - All other.

b/ Requires new legislation in addition to extension.

c/ Includes $21,100 for energy R&D as follows:

Section 104(u)(1)	$20,300
Section 105	800

Marine Protection, Research and Sanctuaries Act of 1972

Title I - Ocean Dumping: Section 111 - General Authorization.....	23	1,260
Primary Sections Applicable: 102 and 104, Ocean Disposal Permits.....	23	1,260

Clean Air Act, as amended		Positions	Budget Authority
Section 104 - Research Relating to Fuels and Vehicles.....		108	$60,237 a/
Section 316 - General Authorization.....		1,700	167,459 b/
Primary Sections Applicable	Major Purpose		
103 other than 103(f)(3)	Research & Demonstration.....	502	77,958 b/
	Training.....	29	2,243
	Manpower Planning.....	4	254
103	Monitoring and Information Systems.....	80	2,533
103, 105 & 106	Control Agency Support.....	15	48,028
103 and 110	Technical Support and Evaluation.....	231	7,917
109, 111, & 112	Stationary Source and Air Standards.....	150	7,126
202, 206, 207, 209 & 231	Mobile Source Standards, Compliance and Support.....	223	8,935
113, 114, 115 & 303	Stationary Source Enforcement.....	333	8,892
203, 205, 206, 207, 209, 211 & 232	Mobile Source Enforcement.....	111	3,129
118 and 309	Federal Activities.....	22	444
	Total.....	1,808	$227,696 a/ & b/

a/ Includes $50,700 for energy R&D.

b/ Includes $30,500 for energy R&D.

	Positions	Budget Authority
Solid Waste Disposal Act, as amended		
Section 216(a)(2) - General Authorization	188	$21,656 a/
Primary Sections Applicable / Major Purpose		
204 — Research and Demonstration	27	10,034 a/
204, 206, & 209 — Technical Assistance and Studies	155	11,483
204 — Direct Training	...	6
205 — Special Studies on Resource Recovery	...	...
207 — Planning Grants	4	105
210 — Training Projects	...	...
211 — Federal Activities	2	28
Total, Solid Waste	188	21,656 a/

a/ Includes $5,700 for energy R&D.

Noise Control Act of 1972		
Section 19 - General Authorization	86	10,224
Primary Sections Applicable / Major Purpose		
4 — Federal Activities	4	229
5, 6, 7, 8, 13, 17, & 18 — Standard Setting	49	8,265
14 — Research	1	110
14 — Technical Assistance	22	1,098
11 — Noise Enforcement	10	522
Total, Noise	86	10,224

Federal Insecticide, Fungicide, and Rodenticide Act, as amended	Positions	Budget Authority
Section 27	980	$47,868
Total	980	$47,868

CEQ AND EPA RESPONSIBILITIES

Mr. BOLAND. Mr. Administrator, you have headed both the Council on Environmental Quality and the EPA. During our hearings with the Council on Environmental Quality some of us had the general impression that there is no real good reason why the GEQ and the EPA could not be combined. What does the CEQ do that you could not do? We understand what they do, but what does the Council on Environmental Quality do that the EPA could not do?

Mr. TRAIN. I think in one program area they provide an institutional capability that would be very hard for an independent agency to undertake. That is the general operation and oversight of the environmental impact analysis process as it is conducted by other Federal agencies. CEQ, as has been described to you, I am sure, develops the guidelines which are followed by other Federal agencies and provides sort of an overview function with respect to performance by all Federal agencies under these guidelines and under the National Environmental Policy Act as well.

Because of its executive office location, it is an imposition to bring together, for example, EPA and the AEC, as I remember a particular case, to develop a cooperative coordination in terms of the application of environmental impact analysis to nuclear powerplant licensing. That is hard for one agency not in the Executive Office to accomplish.

It would be very hard for EPA to coordinate other Federal agencies. We can push them and argue with them and we do, quite a good deal, but it is very difficult for us to coordinate them in the sense of speaking for the President. So I think this is one very important role for the Council. It does, of course, do policy studies that are broadly comprehensive across the entire environmental field into areas in which EPA has no specific programmatic responsibility, for example, with regard to wildlife or recreation; in the field of land use, for example, the Council would have a broader viewpoint than EPA does simply by virtue of its own statutory responsibilities. I think these are some of the kinds of distinctions that are significant.

Mr. BOLAND. Mr. Baucus.

SERIOUS ENVIRONMENTAL PROBLEMS

Mr. BAUCUS. Thank you, Mr. Chairman.

In listening to the testimony this morning and also this afternoon, the thought occurred to me that maybe just for the moment we ought to forget all jurisdiction that you have, just forget everybody and look at the country and see what you regard as the one or two major environment problems facing the country today. Just what are they? What is the most serious danger in environmental terms facing us today?

Mr. TRAIN. In terms of hazards, and here I would address particularly the health problems, I would say that the problem of proliferating chemicals and their inadequate assessment prior to full commercial introduction, may be the most pressing problem. It is very risky to single any one thing out and say this is the most important problem. But from the standpoint of our concerns for public health and the existence of adequate authority for dealing with the problem, I think this is an area of major concern.

LEGISLATIVE AUTHORITY

It is illuminated a bit by the recent sample of drinking water around the country. While the Safe Drinking Water Act gives us some tools for dealing with sources of the various contaminants that we are finding in the drinking water supplies, it is very apparent that the overall industrial system of the country, as well as agricultural system, is producing a wide range of new contaminants into the environment over which we have very inadequate handles.

Mr. BAUCUS. Don't you have the resources or the statutory authority to meet this problem?

Mr. TRAIN. We have some under the water law that we have been dealing with and some under the Clean Water Act and some new ones under the Safe Drinking Water Act.

Mr. BAUCUS. Is there enough authority under the acts for EPA to deal with these problems?

Mr. TRAIN. There are some regulations under the Food and Drug authority and some under other agencies.

We have requested legislation known as the Toxic Substances Control Act which is under consideration on the other side. The legislation passed both Houses in the last Congress, but died in conference. It is again under consideration in this Congress. This act would provide a generic approach to the premarket testing of new chemicals being introduced into commercial use and provide EPA with an authority once something has come into use to either ban or otherwise restrict its use in order to protect public health or the environment.

Mr. BAUCUS. Do you think you have sufficient authority now for your purposes?

Mr. TRAIN. No; not in this overall area.

Mr. BAUCUS. In addition to Toxic Substances Act, are you requesting additional authority?

Mr. TRAIN. I think with the Toxic Substances Control Act, we probably would have—well you cannot foresee all problems—a reasonably complete set of tools for dealing with these problems.

FUTURE ENVIRONMENTAL PROBLEMS

Mr. BAUCUS. How about down the road 5 or 10 years from now? This is more difficult, of course. Is the danger problem, the environmental problem, the most hazardous threat to the American health, to the country generally in 5 to 10 years from now?

Mr. TRAIN. If I could move beyond health alone and look at the broader thing called quality of life, which is a little hard to put your finger on, I am sure, I would identify land use as an awfully important factor in environmental quality. Land use is probably the one area that is going to be increasingly important as time goes on as it is obviously very closely related to many programmatic responsibilities. For example, the location of a highway can have a significant impact on air quality. While we attempt to address these issues in terms of broader concern than our own particular responsibilities, I would say that it is even more important for states to deal with land use issues.

Mr. BAUCUS. Do you make periodic reviews within your agency to try to answer these kinds of questions? Just fantasize for a moment. What is the problem? Rather than getting bogged down in the statutes and cubbyholes, what are the problems?

Mr. TRAIN. It is pretty hard to get out of our cubbyholes. I think it would be fair to say we do not really do this anywhere near adequately. I suspect this would be said to be true of most agencies. I know in our own case we are so driven by statutory and court-imposed deadlines of one kind or another, the flow of regulations from EPA, I believe, is far greater than that from any other agency. I do not mean that quantitatively this is any particular measure of success, but it is just a fact of life. We have an enormous amount of business in EPA. We have an enoromus amount of sort of firefighting to do, one issue after another. I suppose the catalyst is a good example.

When the catalyst became a public concern first back in 1973 there were no specific resources in our budget and we had to reallocate resources from other areas to address the problem. Vinyl chloride and asbestos are other examples of issues that surface rather unexpectedly, and place enormous demands on us from a day-to-day standpoint. With these kinds of demands, we do not, I'm afraid, always do a great deal of stepping back and trying to see where we are going 10 years down the road.

Mr. BAUCUS. This ties in with another thought that occurs to me. I understand all the complexities that you face. You have to balance the environmental problems with energy demands and economic costs. But I am wondering if perhaps there is too much a temptation and danger that you might be too much of a balancer and not enough of an advocate of environmental quality. Is that a fair concern?

Mr. Train, is there a danger here with your agency at this time that that is a pending problem?

Mr. TRAIN. I think it is a danger. However, I think it is a danger we inherently have to live with and try to deal with without compromising our environmental responsibilities. At the same time, we must also consider, if we are to be perceived as responsible, the various costs we may be imposing on society both in terms of economic and energy costs, social costs, and others.

I think it is important for us in the development of environmental proposals to do extensive cost/benefit analyses as I think that it is important that the public get their money's worth in terms of the investment they are being asked to make in environmental improvement. This does not say just where you strike the balance. When you deal with critical issues of public health, I think it is awfully important that you lean very far on that side of the equation and do not overly compromise. It is important that EPA be perceived by the public and by the Congress as well, but most importantly by society as a whole as a strong advocate of environmental protection. We are the single agency, and I am not including CEQ in this as they do not have the line responsibility, that speaks to this national concern and priority and we are expected to.

If we don't, no one else very likely will. We do have a responsibility, in my view, to speak up on investigation issues, sometimes even when they may not be fully within our statutory responsibility.

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DECISIONS OVERRULED BY COURTS

Mr. BAUCUS. Can you give us some examples of cases when you took a position in favor of the environment at the cost of perhaps economic decisions or energy and you have been overruled by the courts or the administration?

Mr. TRAIN. I am not sure which would be good examples here. Let me say first by way of background, almost every regulation that we proposed at some point during the process of the proposal and the final promulgation comes under interagency comment, review, and discussion. Naturally, these agencies with an energy responsibility will tend to emphasize in their comments their energy concerns and those with economic responsibilities will emphasize the economic standpoint more than we would. So there is a process of weighing and fully considering all the various factors that may be involved in a given proposal. Even other agencies will raise health issues. HEW, for example, may take issue with a particular approach we are taking on a health problem.

In terms of court action, our low-lead regulations with respect to lead content of gasoline promulgated for the protection of health were set aside by the court of appeals here in Washington not for economic or energy reasons, however, but on the grounds that we had not adequately carried out our evidentiary burden.

We petitioned the full court of appeals to review that three-judge court decision and they granted that petition and set aside the earlier order. So this has now been relitigated. However, the no-lead regulations instituted to protect the catalyst are still in effect.

Mr. BAUCUS. That is fine. You can add to that for the record, if you would.

Mr. TRAIN. In the *Reserve Mining* case having to do with Lake Superior, economic considerations entered into the thinking of the eighth circuit in its dealings with the case.

[The additional response follows:]

Court Decisions and Administration Actions
Overruling EPA Actions due to Economic and Energy Considerations

Besides the Reserve Mining and the lead-free gasoline cases, there have been several court decisions on new source performance standards involving economic and energy considerations. These include new source standards for sulfuric acid plants and for Portland cement plants under the Clean Air Act and for grain milling plants under the Federal Water Pollution Control Act. On the other hand, there are also cases in which court decisions have required EPA to take actions which could lead to greater economic or energy impacts. Examples of such decisions have resulted in cases involving significant deterioration of air quality, control of air pollution from indirect sources, and use of tall stacks and intermittent control systems for attainment of air quality standards.

In terms of actions by the Administration, there have been several instances where the Administration has differed with EPA on proposed legislation. Rather than overruling EPA though, the Adminstration has tended to allow both viewpoints to be expressed to the public and the Congress. Examples of this type have involved significant deterioration of air quality and automobile emissions standards.

Of course, other Federal agencies have made recommendations to us on many individual standard-setting activities; and these have been considered on their merits, as are comments from State and local governments, from industry, from public interest groups, and from the public at large. This careful review of all of our planned standard-setting actions has helped us in our attempts to incorporate appropriate economic and energy considerations into our policies as stipulated by our governing legislation. Thus, we have been able to avoid a large number of instances of court decisions overturning our actions.

Mr. BAUCUS. Generally I have a good feeling about the EPA, but sometimes there is a nagging doubt and suspicion in my mind that sometimes you could be more of a force and advocate for the environment.

I may be wrong, but I was interested in having you tell about this. Sometimes I get this fairly slight doubt.

OCEAN POLLUTION

Another question occurs to me: It concerns the oceans and the seas. Are you doing anything here about statutory authority or studies to try to curb pollution in the oceans? I mention that because about 10 years ago I was in a small sailboat across the Pacific and was amazed at the junk in the oceans. Later, reading about some of the problems with the super oil tankers discharging oil to the oceans, I was worried that if something is not done pretty quickly, we will be in a sad state of affairs.

I was wondering what EPA is doing about ocean pollution.

Mr. TRAIN. We are involved in several ways. First, of course, the municipal treatment program is an important control over river discharge which ends up in estuaries and coastal waters in particular. Secondly, we have an ocean dumping permit program which came into effect in October 1972.

Essentially, all discharges now are regulated by the Environmental Protection Agency when their source is our own coast. In other words, any matter loaded on a vessel for disposal from a U.S. port does require an EPA permit, and if it is a highly toxic material, such disposal may be prohibited.

Mr. BAUCUS. Have you done enough study of the problem to determine whether these actions are sufficient, or do we need to do more?

Mr. TRAIN. I am sure we need to do more.

Mr. BAUCUS. What?

Mr. TRAIN. We have a laboratory at Narragansett in Rhode Island which is focusing almost entirely on marine pollution problems, ecological studies, and the impact of oil on the marine biology. We have other research efforts within our research and development program dealing with the impact of pollutants on the seas: pesticides, for example, in estuary areas. We took the lead for the United States several years ago in 1973, in the development of an international convention on the design of tankers to require segregated ballasts. We tried to get double bottoms approved, but we had insufficient support from other countries. That was the U.S. position. I chaired the U.S. delegation for that convention. It was a major step forward in terms of the control of intentional discharges of oil at sea, and in the design of tankers. But it is a long way from perfection.

It really does not come into effect for several years, and a lot of tankers will be built in the meantime.

Mr. BAUCUS. Who is working on these areas, EPA, the State Department, or some other agency trying to regulate ocean pollution or get control over it? Who is working on it?

Mr. TRAIN. It is a combination. The Coast Guard has the initial responsibility for enforcement. The Federal Water Pollution Control

Act applies, generally speaking, to the territorial waters. We enforce in that area, and it may apply out to the contiguous zone, 12 miles, I am not sure.

NOAA has an enormous amount of oceanographic research capability which we do not have. We work very closely wth NOAA.

The Corps of Engineers, through its harbor dredging and soil disposal activities, has a tremendous amount of activity in coastal areas that impinge on water quality.

Mr. BAUCUS. Thank you very much.

CADMIUM

Mr. TALCOTT. Mr. Administrator, in the proposed regulations for drinking water standards, you have one section on cadmium. The only purpose of having that within the drinking water standards is possibly that there is some trace of cadmium in water, and that could affect a smoker because a smoker apparently picks up cadmium from tobacco. The only reason for having a question about it in water is that the additional amount in water could affect those who have some built up in the body because of smoking.

It seems to me that the smokers know what they are doing. They have been adequately warned by agencies of the Federal Government, and nonsmokers should not be required to go to all of the expense to try to eliminate small traces of cadmium in drinking water.

Is that an undemocratic or unsocial attitude to have?

Mr. TRAIN. Personally, I don't really know much about the issue. I will ask others to comment on that.

Cadmium is a highly toxic metal which in sufficient quantities is exceedingly dangerous to the human health, whether you smoke or not. In Japan there have been some very dramatic outbreaks of illness directly traceable to levels of cadmium in seafood picked up through the water by fish, which were then consumed in the same fashion as mercury poisoning.

Mr. TALCOTT. But I understand that you are proposing to set the standards high to protect those who smoke. Maybe we need a chemist to help me.

Mr. TRAIN. I do not know if we have a chemist.

Dr. TALLEY. We will check on this. My impression is that the cadmium level is set. If you take it into your system through other ways you are in danger but this is to protect the general public from high levels of cadmium.

Mr. TALCOTT. But the major other way to take it into your body is from smoking. You are really protecting the smokers.

Dr. TALLEY. No; cadmium can enter the food chain. You can ingest cadmium if the property is of a type grown in a soil rich with cadmium. You can take it up and eat it as food.

Mr. TALCOTT. Thank you.

Mr. TRAIN. If we can throw any further light on that, we will. I do not have a feeling we have adequately addressed that one.

Mr. TALCOTT. I have some concern about it, but obviously it is not the concern that I thought. Thank you very much.

[The information follows:]

CADMIUM LEVELS

Man takes in cadmium from a variety of sources. The highest amounts for the general population are from food, reaching 50 to 60 micrograms per day. Water, containing cadmium at the level set in drinking standards, would contribute 20 micrograms per day, about a third as much as the average intake from food. Based on data from smoking machines, smokers might inhale 2 to 4 micrograms from 20 cigarettes. The levels in drinking water were set to protect the population at large, and not solely the smokers. In fact they are less protective of the smoker than the nonsmoker.

Mr. BOLAND. Mr. Traxler.

Mr. TRAXLER. Mr. Train, I asked you about the possibility of establishing a program of contingency grants. I thought perhaps we could carry that on tomorrow but if perhaps you can respond to that possibility, do you think that this is a viable one? Do you think that the Agency ought to consider it? Do you think that it is realistic and will it work?

Give us some thoughts on that.

Mr. TRAIN. I really would like to address this for the record, if I could.

Mr. TRAXLER. Surely, you certainly may do that.

Mr. TRAIN. Or tomorrow morning.

Mr. TALCOTT. Is there any member of the press or anyone who does not have a special interest here?

I would like to say for the record that there is. I have been asking this question every time. This is the second. There was one with HUD. You are the first agency that has drawn the press here. I am glad to see it.

Mr. BOLAND. We are delighted you are here. We think you should get more publicity.

Mr. TRAXLER. Let me ask a couple of questions and if you could come in tomorrow with the answers, we appreciate your giving us your time.

First, going to the relationship of EPA and SBA and the provisions in the act that provide for cooperation between EPA and SBA in a program that is designed to provide loans to small industries that cannot meet the costs of meeting the effluent discharge requirements of the act. So, if you can, tell me what is happening there, if it is funded, how much and what OMB thinks about it and where we are in that area? I think we know what OMB thinks.

Now solid waste, how about if tomorrow you can give us some idea about what the agency is doing in the solid waste research/development area? I think you have done some research in that area and some development and demonstration projects. Where do you think you are now and where do you think you ought to be going?

Mr. TRAIN. We will be glad to do that.

Mr. TRAXLER. One of the concerns of many of the Congressmen who represent rural or semirural areas is how can the small counties meet the financing requirements of the construction grant program, the sewer program. There was an environmental financing authority called for in the act. I want you to tell us if you have had any applications under that, how many have been received or approved, and are you still interested in that?

Mr. TRAIN. Fine, we will do that.

Mr. BOLAND. The committee will stand adjourned until 10 o'clock tomorrow morning.

WEDNESDAY, MAY 7, 1975.

Mr. BOLAND. The committee will come to order.

Yesterday, Mr. Traxler propounded some questions to the Administrator, and you indicated that you would have the answers today.

You may proceed.

Mr. TRAIN. All right, Mr. Chairman.

We can expand these for the record as the committee wishes.

CONTINGENCY GRANTS

The first question was on the possibility of contingency grants, and the extent to which we had looked into this.

As I understand it, two types of contingency approaches, one of which we are using, permits a step 1 grant to go ahead, for example, even while an infiltration inflow study is still underway. The grant is made on the assumption that the study will be completed as required. We are doing that administratively, and it does provide some flexibility in the handling of these grants.

More important I suspect, is the suggestion in a number of quarters that there be an opportunity to combine the different steps, step 1, step 2, step 3, perhaps primarily step 1 and step 2. This applies particularly to small projects, and there particularly to projects which may essentially involve simply additions to existing facilities, so that there isn't any major site planning problem or something of that sort involved.

We did endeavor administratively to build some flexibility along those lines into our approach to these different steps, but we were instructed by GAO that this was contrary to the statute.

I might say that we have informally, at the staff level at least, discussed the possibility of some legislative relief to give us additional flexibility, and initially at least met with lack of enthusiasm for that kind of change. We are meeting next week with staff on the House side of the Public Works Committee, and it would be our intention to raise this question with them, and simply to explore the possibilities with them, so that is about where we stand. If that is adequate to the question, Mr. Traxler, maybe I could go on, and I could ask others to expand in more detail.

Mr. TRAXLER. I think that I propounded the question to first generate some internal thoughts within the agency, and, No. 2, just briefly so I would know where you are. I am satisfied with that response.

SMALL BUSINESS ADMINISTRATION

Mr. TRAIN. Second, with respect to the Small Business Administration and its water pollution control loan program, the 1972 amendments authorized $800 million as part of a revolving fund for this purpose. It is my understanding that OMB has put a ceiling of $50 million on the entire program insofar as SBA is concerned, and that

in addition, the disaster assistance loan program must be included within that same ceiling. In a sense the pollution control loan needs are competing with disaster assistance as well.

We put out our own regulations on this matter, sometime last winter. It is my understanding that applications are beginning to come into our regional offices. We have asked our regions for an update on the status of these matters.

I have written both Tom Kleppe, the Administrator of SBA, and followed that up with a letter to Jim Lynn, the Director of OMB, expressing our concerns over the level of funding and the availability of funds for this program. This was some days ago, but I have copies of this correspondence with me, if I could offer that for the record.

Mr. TRAXLER. Please do.

CORRESPONDENCE WITH SBA AND OMB

Mr. TRAIN. Let me spell out what these are: A letter from myself to Mr. Kleppe dated February 18; a letter from me to Mr. Lynn of February 18; and a response from Mr. Lynn to me of April 4.

[The letters follow:]

ENVIRONMENTAL PROTECTION AGENCY,
February 18, 1975.

Hon. THOMAS S. KLEPPE,
Administrator, Small Business Administration,
Washington, D.C.

DEAR MR. KLEPPE: We understand you are confronted with funding limitations on the disaster loan fund for both fiscal year 1975 and fiscal year 1976 which might preclude your honoring all the loan demands received. Also, we have been informed that the Office of Management and Budget has provided some relief ($50 million) for the balance of fiscal year 1975. Given your funding situation, we wanted to provide you with current information regarding the need for additional funds for section 8 of the Federal Water Pollution Control Act of 1972 (FWPCA).

The FWPCA loan program has just recently been initiated and the $640,000 that has been approved in loans for this program through December 1974 is far less than what we expect the demand to be. Since then three applications have been approved for $6.8 million and another for $3 million has received our technical approval for loan eligibility. Further, we expect to receive an additional 100 applications through fiscal year 1975. Assuming an average loan of $100,000, the need resulting from these anticipated applications would be $10 million, in addition to the $9.8 million. Our estimate of applications may be low in view of the increased publicity the program has recently received.

To summarize, we are concerned that unless substantial additional funds for fiscal year 1975 and fiscal year 1976 are made available for this loan program, numerous small businesses that are subject to water permit requirements will be unable to comply. I would appreciate your careful consideration of this need for loan assistance. I have also expressed my concern on this matter in a letter to the Director of the Office of Management and Budget (copy enclosed).

Sincerely yours,

RUSSELL E. TRAIN.

ENVIRONMENTAL PROTECTION AGENCY,
February 18, 1975.

Hon. JAMES T. LYNN,
Director, Office of Management and Budget,
Washington, D.C.

DEAR MR. LYNN: The Federal Water Pollution Control Act of 1972 provides for loans to be funded under the Small Business Administration's disaster loan fund. It is our understanding that the SBA may be unable to meet our expected requirements for loans to assist small businesses in adding to or altering their equipment, facilities, or methods of operation in order to meet water pollution control requirements.

We have provided our assessment of anticipated loan demands for the balance of fiscal year 1975 directly to the SBA (copy enclosed). We understand that an additional $50 million has recently been approved by the Office of Management and Budget for the disaster loan fund and we hope that our requirements can now be met. We remain concerned, however, that these funds may not be sufficient to meet our needs as well as those of other programs financed out of this fund.

We are also concerned about the reduced funding level proposed for fiscal year 1976. The demand for water pollution control loans is just gaining momentum. Should sufficient loan funds not be available, small businesses will be seriously handicapped in meeting water quality standards. As the full demands on the disaster loan fund (including those related to water pollution control) become more definite, we would appreciate your consideration of providing such additional funds to the Small Business Administration as may be necessary.

Sincerely yours,

RUSSELL E. TRAIN.

Enclosure.

EXECUTIVE OFFICE OF THE PRESIDENT,
OFFICE OF MANAGEMENT AND BUDGET,
Washington, D.C., April 4, 1975.

Hon. RUSSELL E. TRAIN,
Administrator, Environmental Protection Agency,
Washington, D.C.

DEAR RUSS: Thank you for your letter of February 18 regarding funding for the SBA water pollution control loan program.

You expressed concern that the budget level for the SBA disaster loan fund might be insufficient in fiscal year 1975 and fiscal year 1976 to meet the demand for water pollution control loans as well as other similar loans which are financed out of this fund.

The SBA water pollution control loan program is part of the "nonphysical" disaster loan program. This program is focused on providing financial assistance to small firms which have been "injured" by Federal regulations, energy shortages, and similar economic "disasters." In the past, when there was very little demand for these nonphysical disaster loans, it was not necessary to place any limitation on the amount of funding for such loans. Funding was provided from the same allocation as that made for natural disaster relief loans.

In the past year or two there have been major legislative amendments to the program which have greatly increased the number of small businesses eligible for assistance. The long-term and low interest rates allowed under the various authorities make these loans very attractive to small businesses, even if financing is available at reasonable terms from private institutions.

Because of this large increase in demand, it has been decided that it is no longer feasible to provide loans to any eligible business that applies. Every additional loan provided by SBA under this program requires that the Treasury borrow an equal amount of funds in financial markets, thereby making it more difficult for small businesses to obtain private financing.

An uncontrolled Federal lending program of this type would result in direct Federal competition with private financial institutions in assisting small businesses, as well as increased competition with all businesses for available financing. Accordingly, it has become necessary to apply criteria to the applications to limit the total program to a reasonable amount, while assuring that the funds are used most effectively.

In view of the above, EPA should not anticipate that loan funds will automatically be available to met the requests of all small businesses eligible under the Federal Water Pollution Control Act of 1972. Also, EPA should be careful that small businesses are not led to believe that water pollution loans will definitely be available from SBA.

We would be interested in receiving your estimates of the likely demand for water pollution control loans as these become available. These may be helpful in determining the appropriate total level of funding for the SBA program.

Thank you for your views on this matter.

Sincerely,

JAMES T. LYNN,
Director.

Mr. BOLAND. Mrs. Burke?

NOISE STANDARDS

Mrs. BURKE. Thank you very much, Mr. Chairman.

Mr. Train, I have a couple of questions. One of them related to the noise standards.

My recollection was that under the enabling legislation, EPA was going to come out with a report in about July of 1974 setting forth some recommendations and some standards in terms of noise. The next step was that there would be regulations adopted by FAA. It was kind of a joint effort between EPA and FAA.

My question is the status of that. At this point, have those regulations been adopted and implemented? Were they accepted by FAA? Where are we in the implementation of some of those standards?

Mr. TRAIN. Mrs. Burke, as you know, Congress provided in the Noise Control Act a dual system, a dual jurisdiction with regard to aircraft noise. It retained the final decisionmaking and promulgating authority in FAA but required EPA to make the studies to which you referred and to make a public proposal to FAA as to what, from an environmental standpoint, we perceived the proper noise levels to be.

FAA is then required to publish these in the Federal Register, hold public hearings, and then obviously take all these into account in arriving at a final promulgation.

We proposed regulations during the winter, as I recall, to FAA on small propeller-driven aircraft noise level requirements, retrofit and fleet noise levels, minimum altitude level procedures and supersonic aircraft. FAA has published these in the Federal Register, but is not yet at the point of promulgation.

I would like to ask Mr. Strelow, who has specific responsibility as Assistant Administrator for Air and Waste Management, which includes the noise program to comment in a little more detail.

Roger, could you address this more specifically?

FAA HEARINGS

Mr. STRELOW. Yes. I believe the FAA has held hearings on all of the proposals with exception of civil supersonic airplanes. Hearings on that proposed regulation are expected to commence next week, I believe.

There is no statutory deadline for final promulgation. However, if the FAA does not intend to adopt our proposal, they must notify us publicly, and then we can go back and publicly ask them some further questions.

We have several other regulations in process. The basic modifications to Federal Aviation Regulation 36, which is the basic subsonic noise regulation, should be proposed to the FAA before the end of this fiscal year, as well as a proposal on approach procedures and short-haul aircraft. We expect that the regulation dealing with noise control at airports will be proposed early in fiscal year 1976.

We are doing a pilot study at some 14 airports around the country to evaluate a uniform mechanism for defining the noise impact around the airport. This pilot study should determine how options available to the airport manager and local authorities could be used along with

our recommendations to FAA on controlling aircraft noise emission and operations to sharply reduce the population impacted by noise around the airport.

Our proposal would be that the FAA require a plan from the airport using the methodology which we are developing. Certification of an airport would depend upon the development and implementation of a satisfactory plan. It would involve public hearings and so on.

I suspect that this is going to take sometime to work out with the FAA; thus far there seems to be considerable receptivity to this idea from the few airports we worked with. It was clearly one of the areas that the Congress intended us to raise.

AIRPORT NOISE REGULATIONS

Mrs. BURKE. A recent court decision, of course, has placed back with the local authorities the power to regulate, to some degree, the noise levels.

How are you working on that at this point, or what is the coordination? Have these local authorities agreed to go along, basically, with some of your recommendations in these particular areas? Could you tell us what has been done as a result of that?

Mr. STRELOW. There is a basic residual authority in the airport owner and operator to regulate the aircraft using the airport. He can restrict landings and takeoffs at certain times of day, or require them to use certain runways or, indeed, prohibit certain types of aircraft operations all together. For example, in the SST situation, no matter what is done at the Federal level, the local airport operator still has the option to regulate those flights.

One of the basic problems with airport noise has been defining who has ultimate responsibility for the noise damages; the airport operator or the airlines. There has been some reluctance because of this on the part of the local airport operators, in many cases, to establish a regulatory program. I think they fear that it may highlight their potential responsibility for some fairly substantial damage claims, such as in the Los Angeles area. However, I think that by proposing a national mechanism that would be implemented through the Federal Aviation Administration and their authority to certify airports, we ought to get a fair amount of cooperation from the airport operators. These regulations will provide operators with some ground rules.

NOISE ALTITUDE REQUIREMENTS

Mrs. BURKE. One final question on this.

Have you made any evaluation of the claim that has been made by the Airline Pilots Association that the altitude requirements in at least three airport situations are such that they are unable to operate safely within those areas? Have you made an evaluation of those particular 3 in these 14 airports that you are reviewing?

Mr. STRELOW. Are these altitude requirements that are based on noise?

Mrs. BURKE. Yes; the altitude requirements based on noise that have been required by at least three airports are such that the Airline Pilots Association has determined that they do not feel that they can work

safely and land safely with those altitude requirements in takeoff and landing.

Mr. STRELOW. I don't know of the specific three you are referring to.

Mrs. BURKE. Anchorage is one, I know that Los Angeles is one, and I am not sure of the other airport.

Mr. STRELOW. We have proposed to FAA minimum altitudes for the approach, and we have another set of recommendations that will be proposed to the FAA very shortly, a matter of a week or so I think, that deals with the final approach method during landing.

In every case we have taken, I hope, an unequivocal position that in considering the proposals we may be making that safety is the paramount consideration. The procedures should be used to minimize noise. However, where topographical or meteorological conditions dictate other procedures for safety, such considerations must be given priority.

If the two-segment approach of the type we are proposing had been in effect, the accident near Dulles might have been avoided. The problem was that they got down too low too far out from the airport. Our interest would basically be for them to stay up and not have a very long low angle approach, which makes for a noisier ground condition. Rather they should come down to the airport, when they are closer to it.

Mr. TRAIN. Mrs. Burke, on that, because this is a key relationship between noise control and safety, Mr. Strelow is quite right. The paramount consideration obviously has to be safety.

The responsibility for making the decisions from the safety standpoint rest with FAA. This is a primary reason why Congress maintained this dual jurisdiction.

We do make recommendations, but primarily based upon our responsibility for improving the noise characteristics of the operation, taking whatever obvious safety considerations into account that we are knowledgeable about, or might be called to our attention in the course of interagency discussions with FAA. However, we recognize that FAA, in reviewing those proposals may very well modify them in the interests of safe operation. This is a key element in their responsibility.

Mrs. BURKE. It is such a ticklish question, a very difficult one to resolve. I am in a very unique position of representing a district wherein a portion of it, the properties cannot even be sold because Fannie Mae won't even buy the paper on it because of the noise level. It gets to be a very difficult problem to resolve. I am trying to get some idea of which direction it is going in.

LOS ANGELES AIR STANDARDS

My second question relates to an issue that was prior to your Administration. At one time there was an indication that EPA might be taking a position in the Los Angeles area that automobiles were incompatible with usage within the downtown area. It was based upon a number of tests that had been run on pollution levels.

What has happened with that? I haven't heard anything recently. At one time we were almost at a scare level, a panic, but I hadn't heard anything recently.

Mr. TRAIN. I think the fact that you may not have been hearing something is good news insofar as I am concerned. It indicates that we

are probably working quite effectively with the local community there. That is sort of a facetious answer.

Let me answer more specifically.

By way of very brief background, as you know, the Clean Air Act requires in all parts of the country to achieve ambient air quality standards by fixed attainment dates which, in the case of Los Angeles, I think is May 1977. If those standards are not going to be achieved by a combination of the controls on smokestacks and the emission controls on the cars themselves, then the statute requires, and the courts have required, that the States develop, with EPA approval, a series of measures such as transportation control plans to minimize or reduce the level of automotive pollutants by reducing the vehicle miles traveled.

In the Los Angeles case, we were required by court order to develop a plan which would demonstrate achievement of air quality within the requisite period of time. After we added up the reductions in the level of automotive pollutants achieved through carpooling, mass transit inspection and maintenance of vehicles, retrofiting of old cars with pollution control equipment, exclusive bus lanes, and control of evaporation of hydrocarbons from tanks at filling stations in Los Angeles, we were still far from attaining the standard as required by the statute. Therefore, the Administrator at that time in order to comply with the law, and not be in contempt of the court, filled in that gap, so to speak, by putting as the ultimate element of the plan something like 80-percent gas rationing. This requirement would essentially have eliminated the use of automobiles in the Los Angeles basin.

At the time the regulations were proposed, he said that this was a complete impossibility, that an impractical recommendation was being proposed only for the purpose of meeting the requirements of the statute. It also was intended to highlight the issue and the need for addressing this problem.

We have stated consistently that we have no intention of promulgating what I think we would all agree would be socially and economically disruptive strategies.

At the same time there are lots of things, some of them I have mentioned, carpooling, things of this sort, which can be instituted and which can have a beneficial effect on air quality. These are being implemented.

It is my understanding that in Los Angeles, EPA and the city have had a very effective cooperative relationship. I know we have had a lot of support from Mayor Bradley on instituting and implementing these really very difficult plans.

Having recognized the somewhat unrealistic requirements of the statute and the court decisions in the case of areas like Los Angeles, we have asked Congress this past February, and actually a year prior to that, for legislative changes in the Clean Air Act which would give EPA, the Administrator, the authority on a case-by-case basis to extend the statutory deadline. This would provide a mechanism for places like Los Angeles and many other areas in California, including San Francisco, Sacramento, the San Joaquin Valley, and San Diego, to avoid the kind of uneconomic and socially disruptive strategy that I was describing.

This would permit us then to move ahead vigorously with those things which can be done and should be done, and to allow time for finding less disruptive solutions to the problem.

DREDGING

Mrs. BURKE. Thank you very much.

Yesterday we talked about water sewage standards. We are involved in a dredging operation of the port. My understanding of the reason for the dredging is that there has been an accumulation of rubble on the ocean floor.

I thought there was a highly sophisticated water treatment and sewage plant that was in operation, and immediately the question comes up in my mind, are the standards such in water sewage treatment that you still have this much residue that it can build up in some of those coastal areas, with the kinds of results that we have?

Mr. TRAIN. I am going to ask Mr. Agee to address this, but let me say that the need for dredging is not only related to the pollutants that go into the water, but also the runoff of silt from agricultural operations, real estate development construction and things of this sort. All contribute large amounts of silt which fill up harbors, and which must be dredged out periodically in order to keep them economically viable as ports.

The Port of Baltimore on the east coast right now is a very significant case in point.

The disposal of the dredge spoil becomes a serious problem when it is highly contaminated with toxic materials. Let me ask Mr. Agee to address further why it is we have toxic materials when we have sewage treatment plants. We are just getting a lot of these plants on line.

Mrs. BURKE. I understand.

The reason I asked this is that I thought this facility was highly sophisticated, it had been an example that has been used over the years, and the runoff does go through the sewage plant I thought.

Mr. TRAIN. From the city streets probably, but agricultural runoff, generally speaking, doesn't.

Mrs. BURKE. Some of the commercial may not.

Mr. TRAIN. Yes.

Mr. AGEE. Our requirements for both the municipal and industrial permits have limits on suspended solids. The municipality or industry as they meet these standards would not create deposits which would require dredging.

One of the problems we have is storm water. A good portion of the storm water across this country is not treated today. It is of a lower priority for us fundingwise at this point in time, until we can take care of the domestic sewage on a priority basis.

A good many industries have yet to actually comply with their permit requirements. They have until some time in the future, 1977 is a date we frequently use, to remove those materials. This is why we still have some sludge buildups in harbors and this sort of thing from waste collection systems, but as our requirements are met we would obviate that problem.

There is a good deal of agricultural and just plain land runoff, sedi-

ment transport as we refer to it, that does cause siltation in a good many harbors and will always create a need for dredging, until we can come to sediment control practices which would reduce these.

NONPOINT SOURCES

Mr. TRAIN. This gives me an opportunity, if I might just for a moment, Mr. Chairman, to mention with regard to these nonpoint sources generally that this is increasingly seen by us as the major unresolved water quality problem in the country.

More and more we are getting the municipal discharge from the sewer pipe under control. It is just a matter of time and money, and we are doing that job.

Likewise this is true of the industrial plant and its so-called point discharges out of the pipe and into a river, lake, or ocean. These are all coming under permit and they are all coming under control. However, nonpoint source pollution includes the runoff of fertilizers, which brings a lot of nutrients, excessive nutrients into our waterways; the runoff of pesticides, some of which are quite toxic to marine life; the runoff of soil from farms; the runoff from forestry practices in the Northwest, for example, and the runoff from mining operations, such as acid mine drainage from old mines which is a critical problem in the upper reaches of the Potomac and is still getting worse.

Mr. TALCOTT. That is a nonpoint source?

Mr. TRAIN. That is a nonpoint source. With respect to irrigation return flows from farming activities, these pick up minerals in the soils and salts, and then take them into the waterway. These are exceedingly difficult to handle, as one of the kinds of problems that we are trying to address with the States and local planning units through our section 208 areawide waste treatment planning grant program, which requires an areawide plan that integrates the nonpoint source kind of problem with the point source problem.

I am sorry to have volunteered on this.

Mr. ROUSH. Will you yield?

Mrs. BURKE. Yes.

Mr. ROUSH. I think that this is a very important consideration. I am pleased to observe that something is being done about it.

MAUMEE RIVER CONFERENCE

I would like to just relate an experience I had. I canoed the Maumee River from Fort Wayne, Ind., to the Ohio line, and spent 2 days in doing that. That was followed by what we call a Maumee conference which involved officials of Ohio, Indiana, and your office.

I was amazed to learn, as a result of that conference, that it was not the municipality of Fort Wayne, nor was it the industrial complex in that area toward which the finger of accusation was being pointed, but rather it was to the agricultural community, these nonpoint sources of pollution which so many people considered to be the primary source of the pollution of the river.

The sedimentation which went into that river carried with it the pesticides, the fertilizers and the insecticides, and it very definitely

affected the quality of the river not just there, but because of the very nature of the soil in the area it carried it all the way to Lake Erie.

As I mentioned yesterday, as a result of all this we, through the funding of EPA, have this Black Creek project, wherein we are studying how to relieve us of that nonpoint source of pollution. People from all over the country have been in to look at it.

Hopefully it will be somewhat helpful, but I really think great emphasis should be placed upon this now. I think we are getting some of the other problems under control, but this is of such magnitude and so difficult that I think a great deal of attention should be given to this problem.

Mr. TRAIN. I am glad to hear you say that.

Mr. ROUSH. The whole point in this study, as I mentioned yesterday, and it is a cooperative study—the Soil and Water Conservation Service of this area is in charge of the project. I was quite proud of them because they recognized that it was agriculture polluting the stream, and they didn't want to curtail the production of food. They wanted to find some way of relieving us of this problem and still be able to fulfill their function as food producers.

It is just an amazing project. As an example, we have a lot of Amish in this area and they have a lot of livestock. They are experimenting with grass waterways, the type of grass that an animal doesn't like, so the animals stay out of that grass waterway, and the wastes from those animals doesn't get into the stream.

Purdue University has a rainmaking machine. They came in with their rainmaking machine and studied the effect of a drop of water on a piece of soil, and it is like a minor explosion. It disturbs that soil so that it picks it up and carries that sediment into the stream, and with proper ground cover and proper planning, this can be avoided. It is a tremendous problem, because while you have your population centers, you still have this problem which is countrywide, and covers so much more area than a population center.

I am pleased that some attention is being given to the problem.

SOIL CONSERVATION LEGISLATION

Mr. TALCOTT. Mr. Administrator, you have control over the environment, the air and water, but you really don't have any enabling legislation or authorizing legislation for soil conservation or soil pollution.

Mr. TRAIN. No, not really. We don't want it either.

Mr. TALCOTT. I suppose you don't want any for several reasons.

Mr. TRAIN. What we do, we do get into some related kinds of things like feedlot regulation, which is essentially a nonpoint source, but it is fairly identifiable and controllable in most cases, and we do have regulations in that area governing the larger feedlots, and we hope to keep it to the larger feedlots.

Mr. TALCOTT. They are all going broke so you won't have so much trouble with them for much longer.

Mr. TRAIN. We do have the section 208 program which I mentioned, which is essentially to assist State and regional planning groups to deal with this problem. We are not, from a Federal standpoint, getting

in and telling the farmer that this is how you ought to manage the land or something of that sort, but we are trying to get State and local governments to develop the institutional base and the planning mechanism for doing this kind of job.

We are also working very closely with the Department of Agriculture, trying to develop guidelines for good land management, purely voluntary, but guidelines which can be implemented, and hopefully can have a major effect in reducing runoff and things of this sort.

We are doing the same thing with the Forest Service, working with the forest products industry, in the development of a suggested State forest practices act, purely as a guide.

The Federal Water Pollution Control Act does quite clearly direct us to undertake these activities, not in the sense of actually developing regulatory controls, but in terms of developing this kind of guidance, which can then be implemented by State and local governments or by the individual farmer for that matter.

That is the approach we are trying to take and it is a big problem. I completely share your thought that we must maintain the productivity of our farms, and related to that is the fact that the basic maintenance of the soil on the land is in the long run the most important thing that we can do for maintaining productivity.

PESTICIDE 1080

Mr. TALCOTT. There is something that is related to what Mrs. Burke said, the sedimentation of her harbor. I have heard some horrendous stories about the number of carloads of topsoil that are carried into the Mississippi River every day. It is faster than railroad cars to do it.

Some of that I know is caused in our area by the excessive damage by squirrels who dig holes. Then erosion is caused so that topsoil is filling up some of our rivers.

The prohibition on 1080 is causing unusual sedimentation down in Mrs. Burke's harbor, so I would just like to have you know about it.

Mr. TRAIN. You have given us a very important ecological lesson.

Mr. TALCOTT. I think we have to recognize that the ecosystem is a very big and complex one and what you do to prevent something in Indiana and Salinas may have some very adverse effects a long way away. You can tinker with this ecosystem we are dealing with by prohibition of some things which are going to have adverse effects. That is why I suggested yesterday we ought to have some reverse environmental impact studies of what happens when some of these things are done and are not done.

Mr. TRAIN. Jim, did you find out about 1080 and squirrels?

Mr. AGEE. Yes, I did.

Mr. TALCOTT. I don't want to overemphasize that.

Mr. AGEE. It is a very good question and it helped me.

Mr. TRAIN. We are using it on rats in urban areas. The question came up.

Mr. TALCOTT. It is perfectly good to get rid of rats that the urban areas don't like but it is not good to do something that the rural people don't like?

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Mr. AGEE. We presently have three products using 1080 registered by EPA. The registration requirements are that that material be utilized by a Federal or State employee, or under their direct supervision, so we still do have this basically for rodent control, as Mr. Train cited. It could be used for squirrel control, at least as I interpret it.

Some States have additional requirements beyond our registration requirements, California being one. We haven't looked into it far enough to see whether or not California could permit 1080 to be used on the squirrels in your particular area for that particular farmer's problem, but we do have three products that are registered, but again that is our requirement that they be applied by a Federal or State individual, so at least there may well be some hope that that person could get some relief.

ENVIRONMENTAL FINANCING AUTHORITY

Mr. BOLAND. Mr. Administrator, you have a couple of other questions that Mr. Traxler was interested in.

Mr. TRAIN. There were a couple more, Mr. Chairman, that I will just touch on briefly.

One, the status of the environmental financing authority.

The 1973 amendments created the environmental financing authority, but I think it is fair to say that no really serious grant applications have ever come in. I think we saw it as a very useful tool back at that time. The interest rate, I think, is 8 percent, which has led most communities to feel that they could do as well elsewhere, so it has not been, as it turned out, a useful tool. It is scheduled to go out of existence this June 30.

In the agriculture programs, the Farmers Home Administration has a very useful program, which uses a 5-percent interest rate, which makes it attractive. This has very large machinery for processing loans. I think they have some 1,400 offices around the country, so it has a potential which we have found very useful, and we have worked closely with the Department of Agriculture on that program, but EFA itself really has been of no help so far.

Mr. TRAXLER. Is it your feeling that if the interest rate were more reasonable, more communities who couldn't otherwise raise their 25 percent might apply to that fund for consideration?

Mr. TRAIN. That I would assume just logically would be right.

Mr. TRAXLER. I think one of the members yesterday was very concerned about the 25 percent local portion, and what happens in situations where a community has no bonding authority whatsoever, and how could we be of assistance.

Mr. TRAIN. Of course if you have got a limitation of indebtedness and they are up against that ceiling, giving them a loan opportunity through EFA isn't going to help that problem, I don't believe.

You also asked sort of the general picture on the solid waste program.

Mr. TRAXLER. Let's defer your answer on that. I think there are some specific questions that the chairman will get to some place later.

Let me use the remaining couple of minutes to go back to our SBA–EPA discussion.

Mr. BOLAND. Will you yield for just a minute?

Mr. TRAXLER. Sure.

FARMERS HOME ADMINISTRATION

Mr. BOLAND. I didn't quite follow the particular area in which the Farmers Home Administration operates here. I understand the Environmental Financing Act, but what does the Farmers Home Administration do in the environmental area?

Mr. TRAIN. Let me ask Mr. Alm to address that.

Mr. ALM. Farmers Home Administration provides grants and loans for waste treatment facilities, sewers and water supply systems. This is a very old program. They could finance the 25 percent local treatment plants.

Mr. BOLAND. Are they doing it?

Mr. TRAIN. Oh, yes.

Mr. ROUSH. But it is restricted to small communities.

Mr. TRAIN. That is correct. We are working with Farmers Home right now.

Mr. TRAIN. It is for communities of 10,000 population and under.

Mr. ALM. They are determining whether they can fund projects for over 10,000 and we will be getting an answer from them shortly.

Mr. BAUCUS. Farmers Home is considering whether to raise that right now.

Mr. ALM. Yes. They are determining whether they have legal authority to do that.

Mr. BAUCUS. I think they do. It is a question of whether they want to or not.

SMALL BUSINESS ADMINISTRATION

Mr. TRAXLER. Let's go back to this, Mr. Train. I need your help in pursuing the SBA–EPA relationship with regard to providing loans to small businessmen, to help them to comply with the provisions of the Water Pollution Act. I think you told us that while $800 million is authorized, OMB has since capped that at $50 million.

Mr. TRAIN. That is my understanding.

Mr. TRAXLER. I am new on the committee and I haven't been in Washington too long. I hope what I hear you saying is wrong, but it dredges up a kind of horrible recollection of the past.

Tell me under what authority OMB is doing that.

Mr. TRAIN. Let me make this comment. This was an authorization. I don't believe there was any direct appropriation. There was no appropriation to fund this.

What happened was, the SBA created a revolving fund with its existing resources. I gather that OMB asked them to hold that revolv-

ing fund at a $50 million level, so it is not an impoundment situation. It falls into some other different category.

Mr. TRAXLER. We will pursue that skunk by another name with the appropriate people.

Mr. AGEE. If I might add, I do have some numbers here that might be of interest to you. We have had 12 loans processed under SBA for small industries up to this point in time for a total of $5 million. By the end of the fiscal year we will have 35 for $12 million, but the important thing I think is that we anticipate from our estimates that we may well expect something like 600 in fiscal 1976, for a total of possibly $80 million, but the pinch is starting to come now where we have written a lot of these waste discharge industrial permits to small industries, so more of them are going to have a need and desire to participate in this SBA program.

SMALL BUSINESS WATER POLLUTION CONTROL PLANS

Mr. TRAXLER. I think you appreciate that the tenor of my questions are to insure that we do proceed with what I know is a very important aspect of the act, so that it gets funded. I wish we could get all of the agencies marching together on this critical and important point.

Would you provide this committee with a copy of your regulations in this particular area, please?

Mr. TRAIN. Yes.

[The information follows:]

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PART II

ENVIRONMENTAL PROTECTION AGENCY

■

SMALL BUSINESS

Water Pollution Control Plans

Title 40—Protection of Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER A—GENERAL

[FRL 190-4]

PART 21—SMALL BUSINESS

Notice of Interim Rulemaking

Notice is hereby given that the Environmental Protection Agency intends to amend Subchapter A, Chapter 1, Title 40, CFR, to implement section 8 of the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500).

Section 8 of Pub. L. 92-500 amended section 7 of the Small Business Act, 15 U.S.C. 636, to authorize loans to assist small business concerns in adding to or altering their equipment, facilities, or methods of operation in order to meet the water pollution control requirements established under the Federal Water Pollution Control Act. A prerequisite to receiving such a loan is a written statement issued by the Environmental Protection Agency or (if appropriate) the State, certifying that the additions, alterations, or methods of operation are "necessary and adequate" to comply with pollution control requirements established under the Act. These interim regulations describe the uniform rules for issuing such statements.

Small business concerns can be eligible for an SBA loan if the additions, alterations, or methods of operation necessary for pollution control result from their engaging in one or more of the following activities:

1. The business has a discharge requiring permitting under section 402 of the Act.

2. The business discharges into a publicly owned treatment works which requires pretreatment by the business.

3. The business plans to discharge into a municipal sewer system through the construction of a lateral or interceptor sewer.

4. The business is subject to the requirements of a State or areawide authority for controlling the disposal of pollutants that may affect groundwater.

5. The business requires a Corps of Engineers permit for dredged or fill material.

6. The business is subject to Coast Guard or State requirements regarding the standard of performance of marine sanitation devices controlling sewage from vessels.

7. The business is implementing a plan to control or prevent the discharge or spill of oil or other hazardous substances.

EPA's role under these guidelines is to determine the sufficiency of the proposed additions or alterations of equipment, facilities, or methods of operation in meeting water pollution control requirements. To receive the requisite statement from EPA, an applying small business concern need not demonstrate that all its activities or discharges will meet all applicable requirements under the Federal Water Pollution Control Act. It need only show that the additions, alterations, or methods of operation for which it is applying for SBA financing are necessary and adequate for compliance with one or more of such applicable requirements.

EPA will not determine the cost-effectiveness of the proposed additions or alterations nor will it assess whether or not other more efficient or technically superior alternatives exist. However, EPA will attempt to identify those components of the additions, alterations, or methods of operation which appear to be extraneous to the achievement of the degree of pollution abatement required by an applicable standard.

EPA will not issue statements to applicants for loans to be applied solely to the preparation or undertaking of plans to determine feasibility, or design for anticipated construction. However, this provision does not later preclude SBA financial assistance being utilized for design, plans, and specification work which are a part of the additions, alterations, or methods of operation deemed necessary and adequate by EPA. This exclusion results from the very nature of the activity conducted, in that no determination can be made of the adequacy or necessity of designs, plans, or specifications until they have been finished.

The review by EPA will be a technical review, with review of the applicant's eligibility as a small business and for the amount of financial assistance requested to be conducted by SBA.

The application for EPA-issued statements will not generally be subject to public notice or hearings but will be available for public inspection during the period of review by the Regional Administrator or during the period of appeal. However, information adequately identified to the Regional Administrator as being entitled to protection as a trade secret shall be treated confidentially by the Agency. The Regional Administrator shall, when necessary, provide public notice and conduct a public hearing regarding a specific application if he believes that the proposed addition, alteration, or method of operation may adversely affect an interest of the public.

Applicants are reminded that the penalties provided under 18 U.S.C. 1001 and 18 U.S.C. 286 can be applied against individuals who modify, change, or alter any statements as issued, or who submit an application containing false information.

Section 7 of the Small Business Act makes no attempt to apportion responsibilities between the States and EPA. However, provision is made for States, upon application to EPA and approval by EPA, to conduct a program for issuing statements under these regulations. Since many applications for additions, alterations, or methods of operation are designed to meet requirements issued and enforced by the States pursuant to programs under various sections of the Act, States are encouraged to accept the responsibilities for conducting such a program, and may use funds authorized under section 106 of the Act for this purpose.

Applicants will also be subject to separate regulations promulgated by the Small Business Administration with regard to their financial eligibility and which establish procedures concerning applications to SBA for loan assistance.

This regulation does not apply to requests for loans to assist small businesses in meeting a compliance requirement under the Clean Air Act as authorized by the Small Business Act, section 7(b)(5). A separate program and procedures will be established for these loans. It is expected that the Small Business Administration will coordinate directly with the individual State air pollution control agencies in this regard.

Questions have been raised whether the intent of section 8 can be fulfilled with a more simplified procedure than that set forth in these interim regulations. In particular, the Agency invites comments and suggestions as to the extent to which the Agency furnishing the statement (EPA or State) could rely upon certifications of adequacy furnished by independent consulting engineers. Following the receipt of any such comments and suggestions, the Agency intends to review the desirability of a more simplified administrative system for implementing Section 8 and consider appropriate modifications to these regulations.

Interested persons are invited to submit comments on these interim regulations to: Chief, Water Program Planning and Accomplishment Branch (AW-454); Office of Air and Water Programs; Environmental Protection Agency; East Tower-Room 815; 401 M Street SW., Washington, D.C. 20460. Comments received within 60 days from the date of publication of this notice in the FEDERAL REGISTER will be considered before the regulations are promulgated as final. All comments received will be available for public inspection during normal working hours at the above location.

In a proposed form, these regulations were reviewed by other Federal agencies and States. Comments were received from the Departments of Commerce and Interior, the Small Business Administration, and the State of Pennsylvania.

These regulations are being issued as interim regulations, with the customary requirement for public comment on proposed rulemaking suspended, because the Agency has determined that some small businesses are presently subject to permit conditions that involve their taking immediate steps to secure financial assistance to undertake the necessary facility modifications or construction.

The Agency does not wish to impede these small businesses from presently securing an advantageous form of financial assistance—small business loans—which could be a result of publishing these regulations as proposed rulemaking.

These regulations will become effective on August 16, 1974.

JOHN QUARLES,
Acting Administrator.

AUGUST 9, 1974.

Sec.
21.1 Scope.
21.2 Definitions.
21.3 Submission of applications.
21.4 Review of applications.
21.5 Issuance of statements.
21.6 Exclusions.
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21.8 Resubmission of application.
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21.10 Utilization of the statement.
21.11 Public participation.
21.12 State issued statements.

AUTHORITY: (15 U.S.C. 636), as amended by Pub. L. 92-500.

§ 21.1 Scope.

This part establishes procedures for the issuance by EPA of the statements, referred to in section 7(g) of the Small Business Act and section 8 of the Federal Water Pollution Control Act Amendments of 1972, to the effect that additions to or alterations in the equipment, facilities (including the construction of pretreatment facilities and interceptor sewers), or methods of operation of small business concerns are necessary and adequate to comply with requirements established under the Federal Water Pollution Control Act, 33 U.S.C. 1151, et seq.

§ 21.2 Definitions.

(a) "Small business concern" means a concern defined by section 2(3) of the Small Business Act, 15 U.S.C. 632, 13 CFR Part 121, and regulations of the Small Business Administration promulgated thereunder.

(b) For purposes of paragraph 7(g)(2) of the Small Business Act, "necessary and adequate" refers to additions, alterations, or methods of operation in the absence of which a small business concern could not comply with one or more applicable standards. This can be determined with reference to design specifications provided by manufactures, suppliers, or consulting engineers; including, without limitation, additions, alterations, or methods of operation the design specifications of which will provide a measure of treatment or abatement of pollution in excess of that required by an applicable standard.

(c) "Applicable Standard" means any requirement, not subject to an exception under § 21.6 of this part, relating to the quality of water containing or potentially containing pollutants, if such requirement is imposed by:

(1) The Act;

(2) EPA regulations promulgated thereunder;

(3) Regulations by any other Federal Agency promulgated thereunder;

(4) Any State standard or requirement as applicable under section 510 of the Act;

(5) Any requirements necessary to comply with an areawide management plan approved pursuant to section 208(b) of the Act;

(6) Any requirements necessary to comply with a facilities plan developed under section 201 of the Act (see 35 CFR Subpart E);

(7) Any State regulations or laws controlling the disposal of aqueous pollutants that may affect groundwater.

(d) "Regional Administrator" means the Regional Administrator of EPA for the region including the State in which the facility or method of operation is located, or his designee.

(e) "Act" means the Federal Water Pollution Control Act, 33 U.S.C. 1151, et. seq.

(f) "Pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. For the purposes of this section, the term also means sewage from vessels within the meaning of section 312 of the Act.

(g) "Permit" means any permit issued by either EPA or a State under the authority of section 402 of the Act; or by the Corps of Engineers under section 404 of the Act.

(h) "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands. [Comment: As the SBA does not extend its programs to the Canal Zone, the listing of the Canal Zone as a State for the purposes of meeting a requirement imposed by sections 311 or 312 of the Act is not effective in this regulation.]

(i) "Statement" means a written approval by EPA, or if appropriate, a State, of the application.

(j) "Facility" means any building, structure, installation or vessel, or portion thereof.

(k) "Construction" means the erection, building, acquisition, alteration, remodeling, modification, improvement, or extension of any facility; provided that it does not mean preparation or undertaking of: Plans to determine feasibility; engineering, architectural, legal, fiscal, or economic investigations or studies; surveys, designs, plans, writings, drawings, specifications or procedures.

[Comment: This provision would not later preclude SBA financial assistance being utilized for any planning or design effort conducted previous to construction.]

(l) The term "additions and alterations" means the act of undertaking construction of any facility.

(m) The term "methods of operation" means the installation, emplacement, or introduction of materials, including those involved in construction, to achieve a process or procedure to control: Surface water pollution from non-point sources—that is, agricultural, silvicultural, mining, construction; ground or surface water pollution from well, subsurface, or surface disposal operations; activities resulting in salt water intrusion; or changes in the movement, flow, or circulation of navigable or ground waters.

(n) The term "vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on the navigable waters of the United States othpr than a vessel owned or operated by the United States or a State or a political subdivision thereof, or a foreign nation; and is used for commercial purposes by a small business concern.

(o) "EPA" means the Environmental Protection Agency.

(p) "SBA" means the Small Business Administration.

(q) "Areawide agency" means an areawide management agency designated under section 208(c)(1) of the Act.

§ 21.3 Submission of applications.

(a) Applications for the statement described in § 21.5 of this part shall be made to the EPA Regional Office for the region covering the State in which the additions, alterations, or methods of operation covered by the application are located. A listing of EPA Regional Offices, with their mailing addresses, and setting forth the States within each region is as follows:

Region	Address	State
I	Regional Administrator, Region I, Environmental Protection Agency, John F. Kennedy Federal Bldg., Room 2303, Boston, Mass. 02203.	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.
II	Regional Administrator, Region II, Environmental Protection Agency, 26 Federal Plaza, Room 908, New York, N.Y. 10007.	New Jersey, New York, Virgin Islands, Puerto Rico.
III	Regional Administrator, Region III, Environmental Protection Agency, Curtis Bldg., Sixth and Walnut Sts., Philadelphia, Pa. 19106.	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia.
IV	Regional Administrator, Region IV, Environmental Protection Agency, 1421 Peachtree St., NE., Atlanta, Ga. 30309.	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.
V	Regional Administrator, Region V, Environmental Protection Agency, 1 North Wacker Dr., Chicago, Ill. 60606.	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin.
VI	Regional Administrator, Region VI, Environmental Protection Agency, 1600 Patterson St., suite 1100, Dallas, Tex. 75201.	Arkansas, Louisiana, New Mexico, Oklahoma, Texas.
VII	Regional Administrator, Region VII, Environmental Protection Agency, 1735 Baltimore Ave., Kansas City, Mo. 64108.	Iowa, Kansas, Missouri, Nebraska.
VIII	Regional Administrator, Region VIII, Environmental Protection Agency, 1860 Lincoln St., suite 900, Denver, Colo. 80203.	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming.
IX	Regional Administrator, Region IX, Environmental Protection Agency, 100 California St., San Francisco, Calif. 94111.	Arizona, California, Hawaii, Nevada, Guam, American Samoa, Trust Territory of the Pacific Islands.
X	Regional Administrator, Region X, Environmental Protection Agency, 1200 Sixth Ave., Seattle, Wash. 98101.	Alaska, Idaho, Oregon, Washington.

(b) An application described in paragraph (1) of § 21.3(c) may be submitted directly to the appropriate State, where a State has assumed responsibility for issuing the statement. Information on whether EPA has retained responsibility for certification or whether it has been assumed by the State may be obtained from either the appropriate Regional Administrator or the State Water Pollution Control Authority in which the facility is located.

(c) An application need be in no particular form, but it must be in writing and must include the following:

(1) Name of applicant (including business name, if different) and mailing address. Address of the affected facility or operation, if different, should also be included.

(2) Signature of the owner, partner, or principal executive officer requesting the statement.

(3) The Standard Industrial Classification number for the business for which an application is being submitted. Such SIC number shall be obtained from the Standard Industrial Classification Manual, 1972 edition. If the applicant does not know the SIC for the business, a brief description of the type of business activity being conducted should be provided.

(4) A description of the process or activity generating the pollution to be abated by the additions, alterations, or methods of operation covered by the application.

(5) A specific description of the additions, alterations, or methods of operation covered by the application. Where appropriate, such description will include a summary of the facility construction to be undertaken; a listing of the major equipment to be purchased or utilized in the operation of the facility; the purchase of any land or easements necessary to the operation of the facility; and any other items that the applicant deems pertinent. Any information that the applicant considers to be a trade secret shall be identified as such.

(6) A declaration of the requirement, or requirements, for compliance with which the alterations, additions, or methods of operation are claimed to be necessary and adequate.

(i) If the requirement results from a permit issued by EPA or a State under section 402 of the Act, the permit number shall be included.

(ii) If the requirement results from a permit issued by EPA or a State for a publicly-owned treatment works, the municipal permit number shall be included along with written declaration from the authorized agent for the publicly-owned treatment works that received the permit detailing the specific pretreatment requirements being placed upon the applicant.

(iii) If the requirement initiates from a plan to include the applicant's effluent in an existing municipal sewer system through the construction of lateral or interceptor sewers, a written declaration from the authorized agent for the publicly-owned treatment works shall be included noting that the sewer construction is consistent with the integrity of the system; will not result in the capacity of the publicly-owned treatment works being exceeded; and where applicable, is consistent with a facilities plan developed under section 201 of the Act (see 35 CFR 917).

(iv) If the requirement results from a State order, regulation, or other enforceable authority controlling pollution from a vessel as provided by section 312 (f)(3) of the Act, a written declaration from the authorized agent of the State specifying the control measures being required of the applicant shall be included.

(v) If the requirement is a result of a permit issued by the Corps of Engineers related to permits for dredged or fill material as provided by section 404 of the Act, a copy of the permit as issued shall be included.

(vi) If the requirement results from a standard of performance for control of sewage from vessels as promulgated by the Coast Guard under section 312(b) of the Act, the vessel registration number or documentation number shall be included.

(vii) If the requirement results from a plan to control or prevent the discharge or spill of pollutants as identified in section 311 of the Act, the title and date of that plan shall be included.

(viii) If the requirement is the result of an order by a State or an areawide management agency controlling the disposal of aqueous pollutants so as to protect groundwater, a copy of the order as issued shall be included.

(7) Additionally, if the applicant has received from a State Water Pollution Control Agency a permit issued by the State within the preceding two years, and if such permit was not issued under the authorities of section 402 of the Act, and where the permit directly relates to abatement of the discharge for which a statement is sought, a copy of that permit shall also be included.

[Comment: Some States under State permit programs, separate and distinct from the NPDES permit program under the Act, conduct an engineering review of the facilities or equipment that would be used to control pollution. The results of such a review would be materially helpful in determining the necessity and adequacy of any alterations or additions.]

(8) Any written information from a manufacturer, supplier or consulting engineer, or similar independent source, concerning the design capabilities of the additions or alterations covered by the application, including any warranties or certifications obtained from or provided by such sources which would bear upon these design or performance capabilities. The Regional Administrator may waive the requirement for this paragraph if it appears that there is no independent source for the information described herein; as, for example, when the applicant has designed and constructed the additions or alterations with in-house capability.

(9) An estimated schedule for the construction or implementation of the alterations, additions, or methods of operation.

(10) An estimated cost of the alterations, additions, or methods of operation, and where practicable, the individual costs of major elements of the construction to be undertaken.

(11) Information on previously received loan assistance under this section for the facility or method of operation, including a description and dates of the activity funded.

(d) A separate application must be submitted for every addition, alteration, or method of operation that is at a separate geographical location from the initial application.

[Comment: As an example, a chain has four dry cleaning establishments scattered through a community. A separate application would have to be filed for each.]

(e) No statement shall be approved for any application that has not included the information or declaration requirements imposed by paragraph (c)(6) of § 21.3.

(f) All applications are to be submitted in duplicate.

(g) All applications are subject to the provisions of 18 U.S.C. 1001 regarding prosecution for the making of false statements or the concealing of material facts.

§ 21.4 Review of application.

(a) The Regional Administrator will conduct a review of the application. This review will consist of a general assessment of the adequacy of the proposed alterations, additions, or methods of operation. The review will corroborate that the proposed alterations, additions, or methods of operation are required by an applicable standard. The review will identify and proposed alterations, additions, or methods of operation that are not required by an applicable standard, or that are extraneous to the achievement of an applicable standard.

(b) The assessment of adequacy will be conducted to ensure that the proposed additions, alterations, or methods of operation are sufficient to meet one or more applicable standards. The assessment will not generally examine whether other alternatives exist or would be more meritorious from a cost-effective, efficiency, or technological standpoint.

(c) An application which proposes additions, alterations, or methods of operation whose design, in anticipation of a future requirement, will achieve a level of performance above the requirements imposed by a presently applicable standard shall be reviewed and approved by EPA or a State without prejudice. The amount of financial assistance for such an application will be determined by SBA.

(d) The Regional Administrator shall retain one copy of the application and a summary of the action taken on it. Upon completion of his review, the Regional Administrator shall return the original application along with any other supporting documents or information provided to the applicant.

§ 21.5 Issuance of statements.

(a) Upon application by a small business concern pursuant to § 21.3 the Regional Administrator will, if he finds that the additions, alterations, or methods of operation covered by the application are adequate and necessary to comply with an applicable standard, issue a written statement to the applicant to that effect, within 45 working days following receipt of the application, or within 45 working days following receipt of all information required to be submitted pursuant to § 21.3(c), whichever is later. Such a written statement shall be classified as a full approval. If an application is deficient in any respect, with regard to the specifications for submission listed in § 21.3(c), the Regional Administrator shall promptly, but in no event later than 30 working days following receipt of the application, notify the applicant of such deficiency.

(b) (1) If an application contains proposed alterations, additions, or methods of operation that are adequate and necessary to comply with an applicable standard but also contains proposed alterations, additions, or methods of operation that are not necessary to comply with an applicable standard, the Regional Administrator shall conditionally approve the application within the time limit specified in subsection (a), and shall also identify in the approval those alterations, additions, or methods of operation that he determines are not necessary.

(2) Conditional approvals as contained in a statement will satisfy the requirements for approval by EPA for those alterations, additions, or methods of operation determined to be necessary and adequate. Such conditional approvals may be submitted to SBA in satisfaction of the requirements of section 7(g)(2)(B) of the Small Business Act.

(3) Conditional approvals will not satisfy the requirements for approval by EPA for those alterations, additions, or methods of operation included in the application that are determined not to be necessary. Unnecessary alterations, additions, or methods of operation are those which are extraneous to the achievement of an applicable standard.

(4) Conditional approvals may be appealed to the Deputy Administrator by an applicant in accordance with the procedures identified in § 21.8.

(c) If the Regional Administrator determines that the additions, alterations, or methods of operation covered by an application are not necessary and adequate to comply with an applicable standard, he shall disapprove the application and shall so advise the applicant of such determination within the time limit specified in subsection (a), and shall state in writing the reasons for his determination.

(d) Any application shall be disapproved if the Regional Administrator determines that the proposed addition, alteration, or method of operation would result in the violation of any other requirement of this Act, or of any other Federal or State law or regulation with respect to the protection of the environment.

(e) An applicant need not demonstrate that its facility or method of operation will meet all applicable requirements established under the Act. The applicant need only demonstrate that the additions, alterations, or methods of operation for which financial assistance is being requested will comply with one or more of the applicable standards.

[Comment: As an example, a small business has two discharge pipes—one for process water, the other for cooling water. The application for loan assistance is to control pollution from the process water discharge. The applicant need not discuss any control measures being introduced to abate pollution from the cooling water if no loan assistance is being requested for that discharge.]

(f) An application should not include major alternative designs significantly differing in scope, concept, or capability. It is expected that the applicant at the time of submission will have selected the most appropriate or suitable design for the addition, alteration, or method of operation.

(g) EPA will not provide assistance in the form of engineering, design, planning or other technical services to any applicant in the preparation of his application.

§ 21.6 Exclusions.

(a) Statements shall not be issued for applications in the following areas:

(1) Local requirements. Applications for statements for additions, alterations, or methods of operation that result from requirements imposed by local or regional authorities, except for areawide management agencies designated and approved under section 208 of the Act, shall not be approved; except for those requirements resulting from the application of pretreatment requirements under section 307(b) of the Act; or those resulting from an approved project for facilities plans, and developed under section 201 of the Act. (See 35 CFR Subpart E.)

(2) Cost recovery and user charges. Applications for statements involving a request for financial assistance in meeting revenue and service charges imposed upon a small business by a municipality conforming to regulations governing a user charge or capital cost system under section 204(b)(2) of the Act (see 25 CFR 925–11 and 925–13) shall not be approved.

(3) New facility sewer construction. Applications for statements involving projects that involve the construction of a lateral, collection, or interceptor sewer, at a facility that was not in existence on October 18, 1972, shall not be approved. Applications for additions, alterations, or methods of operation for new facilities that do not involve sewer construction are not affected by this preclusion.

(4) Other non-water related pollution abatement additions, alterations, or methods of operation which are not integral to meeting the requirements of the Act, although they may be achieving the requirements of another Federal or State law or regulation.

[Comment: An example would be where stack emission controls were required on equipment that operated the water pollution control facility. This emission control equipment as an integral part of the water pollution control system would be approvable. However, emission control equipment for a general purpose incinerator that only incidentally burned sewage sludge would not be approvable.]

(5) Privately owned treatment facility service or user costs. Applications for statements involving financial assistance in meeting user cost or fee schedules related to participating in a privately owned treatment facility not under the ownership or control of the applicant shall not be approved.

(6) Operation and maintenance charges. Applications for statements containing a request for financial assistance in meeting the operations and maintenance costs of operating the applicant's additions, alterations, or methods of operation shall not be approved for any elements relating to such areas of cost.

(7) Evidence of financial responsibility. Applications for statements containing a request for financial assistance in meeting any requirements relating to evidence of financial responsibility as provided in section 311(p) of the Act shall not be approved.

§ 21.7 Reserved.

[Comment: Applications for a statement resulting from a requirement to control pollution from non-point sources as identified in section 304(e)(2)(A–F) of the Act and described in § 21.2(m) of this part will not presently be issued a statement under § 21.8 of this part. There is no requirement under the current Act that the Federal government control pollution from such sources, and the nature and scope of State or areawide management agency proposals or programs to control such sources cannot be determined at this time. As State plans for control of non-point sources being prepared under § 303(e) of the Act, and areawide plans being prepared under § 208 of the Act, will not be completed for several years, this section is being reserved pending a future determination on the eligibility of applications relating to non-point sources to receive a statement under this part.]

§ 21.8 Resubmission of application.

(a) A small business concern whose application is disapproved may submit an amended or corrected application to the Regional Administrator at any time. The applicant shall provide the date of any previous application.

§ 21.9 Appeals.

(a) An applicant aggrieved by a determination of a Regional Administrator under § 21.5 may appeal in writing to the Deputy Administrator of the Environmental Protection Agency, within 30 days of the date of the determination from which an appeal is taken; provided that the Deputy Administrator may, on good cause shown, accept an appeal at a later time.

(b) The applicant in requesting such an appeal shall submit to the Deputy

Administrator a copy of the complete application as reviewed by the Regional Administrator.

(c) The applicant should also provide information as to why it believes the determination made by the Regional Administrator to be in error.

(d) The Deputy Administrator shall act upon such appeal within 60 days of receipt of any complete application for a review of the determination.

§ 21.10 Utilization of the statement.

(a) Statements issued by the Regional Administrator will be mailed to the small business applicant and to the Small Business Administration. It is the responsibility of the applicant to also forward the statement to SBA as part of the application for a loan.

(b) Any statement or determination issued under § 21.5 shall not be altered, modified, changed, or destroyed by any applicant in the course of providing such statement to SBA. To do so can result in the revocation of any approval contained in the statement and subject the applicant to the penalties provided in 18 U.S.C. 1001.

(c) If an application for which a statement is issued under § 21.5 is substantively changed in scope, concept, design, or capability prior to the approval by SBA of the financial assistance requested, the statement as issued shall be revoked. The applicant must resubmit a revised application under § 21.3 and a new review must be conducted. Failure to meet the requirements of this subparagraph could subject the applicant to the penalties specified in 18 U.S.C. 1001 and 18 U.S.C. 286. A substantive change is one which materially affects the performance or capability of the proposed addition, alteration, or method of operation.

(d) An agency, Regional Administrator, or State issuing a statement under § 21.5 shall retain a complete copy of the application for a period of five years after the date of issuance of the statement. The application shall be made available upon request for inspection or use at any time by any agency of the Federal Government.

(e) No statement as issued shall be construed as modifying, suspending, abrogating, or changing the terms, conditions, limitations, or schedules of compliance imposed by any applicable standard, permit, or other requirement authorized under this Act. The pendency of an application for a statement or for financial assistance as under this Section shall not be construed as a waiver or suspension of the compliance requirements of any applicable standard or permit.

(f) No statement as issued and reviewed shall be construed as a waiver to the applicants fulfilling the requirements of any State or local law, statute, ordinance, or code (including building, health, or zoning codes).

(g) An amended application need not be submitted if the facility, property, or operation for which the statement is issued is sold, leased, rented, or transferred by the applicant to another party prior to approval by SBA of the financial assistance, provided that there is or will be no substantive change in the scope, concept, design, capability, or conduct of the facility or operation.

[Comment: However, eligibility for financial assistance would be reexamined by SBA with regard to any such sale, lease, rental or transfer.]

(h) The Regional Administrator may include in any statement a date of expiration, after which date the approval by the Regional Administrator contained in the statement shall no longer apply. The date of expiration shall not become effective if the applicant has submitted the statement to the SBA, prior to the date of expiration, as part of the application for financial assistance.

§ 21.11 Public participation.

(a) Applications shall not generally be subject to public notice, public comment, or public hearings. Applications during the period of review as stated in § 21.5, or during the period of appeal as provided in § 21.8, shall be available for public inspection. Approved applications as provided in § 21.10(d) shall be available for public inspection at all times during the five year period.

(b) The Regional Administrator, if he believes that the addition, alteration, or method of operation may adversely and significantly affect an interest of the public, shall provide for a public notice and/or public hearing on the application. The public notice and/or public hearing shall be conducted in accordance with the procedures specified for a permit under 40 CFR 125.32 and 40 CFR 125.34(b).

(c) Where the applicant is able to demonstrate to the satisfaction of the Regional Administrator that disclosure of certain information or parts thereof as provided in § 21.3(c)(5) would result in the divulging of methods or processes entitled to protection as trade secrets, the Regional Administrator shall treat the information or the particular part as confidential in accordance with the purposes of section 1905 of Title 18 of the United States Code and not release it to any unauthorized person. *Provided, however,* That if access to such information is subsequently requested by any person, there will be compliance with the procedures specified in 40 CFR 2. Such information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out the Act or when relevant in any proceeding under the Act.

§ 21.12 State issued statements.

(a) Any State after the effective date of these regulations may submit to the Regional Administrator for his approval an application to conduct a program for issuing statements under this section.

(1) A State submission shall specify the organizational, legal, financial, and administrative resources and procedures that it believes will enable it to conduct the program.

(2) The State program shall constitute an equivalent effort to that required of EPA under this section.

(3) The State organization responsible for conducting the program should be the State water pollution control agency, as defined in section 502 of the Act.

(4) The State submission shall propose a procedure for adjudicating applicant appeals as provided under § 21.9.

(5) The State submission shall identify any existing or potential conflicts of interest on the part of any personnel who will or may review or approve applications.

(i) A conflict of interest shall exist where the reviewing official is the spouse of or dependent (as defined in the Tax Code, 26 U.S.C. 152) of an owner, partner, or principal officer of the small business, or where he has or is receiving from the small business concern applicant 10 percent of gross personal income for a calendar year, except that it shall mean 50 percent gross personal income for a calendar year if the recipient is over 60 years of age and is receiving such portion pursuant to retirement, pension, or similar arrangements.

(ii) If the State is unable to provide alternative parties to review or approve any application subject to conflict of interest, the Regional Administrator shall review and approve the application.

(b) The Regional Administrator, within 60 days after such application, shall approve any State program that conforms to the requirements of this Section. Any such approval shall be after sufficient notice has been provided to the Regional Director of SBA.

(c) If the Regional Administrator disapproves the application, he shall notify the State, in writing, of any deficiency in its application. A State may resubmit an amended application at any later time.

(d) Upon approval of a State submission, EPA will suspend all review of applications and issuance of statements for small businesses in that State, pending transferral. Provided, however, that in the event of a State conflict of interest as identified in § 21.12(a)(4) supra, EPA shall review the application and issue the statement.

(e) Any applications shall, if received by an EPA Regional Office, be forwarded promptly to the appropriate State for action pursuant to section 7(g)(2) of the Small Business Act and these regulations.

(f)(1) EPA will generally not review or approve individual statements issued by a State. However, SBA, upon receipt and review of a State approved statement may request the Regional Administrator of EPA to review the statement. The Regional Administrator, upon such request can further approve or disapprove the State issued statement, in accordance with the requirements of § 21.5 of this part.

(2) The Regional Administrator will periodically review State program performance. In the event of State program deficiencies the Regional Administrator will notify the State of such deficiencies.

(3) During that period that any State's program is classified as deficient, statements issued by a State shall also be sent to the Regional Administrator for review. The Regional Administrator shall notify the State, the applicant, and the SBA of any determination subsequently made, in accordance with § 21.5 of this part, on any such statement.

(i) If within 60 days after notice of such deficiencies has been provided, the State has not taken corrective efforts, and if the deficiencies significantly affect the conduct of the program, the Regional Administrator, after sufficient notice has been provided to the Regional Director of SBA, shall withdraw the approval of the State program.

(ii) Any State whose program is withdrawn and whose deficiencies have been corrected may later reapply as provided in § 21.12(a).

(g) Funds appropriated under section 106 of the Act may be utilized by a State agency authorized to receive such funds in conducting this program.

[FR Doc.74-18902 Filed 8-15-74;8:45 am]

AIR

Mr. BOLAND. We will turn to the justifications and insert pages A–1 through A–55 into the record at this point.

[The material follows:]

Air

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$87,317,300	$77,235,100	-$10,082,200
Enforcement...	10,749,900	12,020,000	+ 1,270,100
Research and Development.	55,958,800	47,973,600	- 7,985,200
Total.....	154,026,000	137,228,700	- 16,797,300
End-of-Year Employment			
Abatement and Control.....	730	773	+43
Enforcement...	404	444	+40
Research and Development.	456	454	-2
Total.....	1,590	1,671	+81

Overview and Strategy

The Clean Air Act authorizes a national program of air pollution research, regulation, and enforcement activities. Primary responsibility for the prevention and control of air pollution rests with State and local governments. The program is directed at the Federal level by the Environmental Protection Agency (EPA). EPA's role is to conduct research and development programs, set national environmental goals, ensure that adequate standards and regulations are established to meet these goals, provide technical and financial assistance to the States, and ensure that the standards and regulations are effectively enforced.

The environmental goals are quantified in the National Ambient Air Quality Standards (NAAQS), which set forth the allowable concentration in air of pollutants which affect human health and public welfare. The health and other effects of pollutants are delineated in criteria documents which are the basis for the standards. National Ambient Air Quality Standards have been set for total suspended

particulates, sulfur dioxide, nitrogen dioxide, carbon monoxide, photochemical oxidants, and hydrocarbons. The first three pollutants are emitted primarily from stationary sources, while the remainder are attributed primarily to motor vehicles. Two types of standards are set: primary standards to protect human health and secondary standards to protect the public welfare (prevention of damage to property, animals, vegetation, crops, visibility, etc.).

As an aid in managing the air pollution control program, the Nation has been divided into 247 Air Quality Control Regions (AQCRs). These regions are classified into priorities according to the seriousness of the air pollution problem.

The severity of the air pollution problem that the Nation faces can best be described by examining the classification of the Air Quality Control Regions. Of the 247 Regions, 120 were classified in 1972 as Priority I where the concentration of particulates was significantly above the level necessary to protect human health. Over 65 percent of the population resides in these areas. Sixty AQCRs with 50 percent of the population were classified as Priority I for sulfur dioxide. About 53 percent of the population resides in the 53 Regions where the concentration of photochemical oxidants is significantly above protective health standards. Of course, not all of the population in these Regions is exposed to levels of pollution above the primary standard.

Significant gains have been made in reducing air pollution. The average center - city concentration of sulfur oxides has markedly decreased and some progress has been made in reducing urban particulate levels. These gains result, primarily, from the increased use of cleaner burning fuels. Further improvements in air quality can be expected as the effects of stationary source control devices, currently being installed to conform with State Implementation Plans, are felt. In addition, there has been a significant downward trend in motor vehicle emissions since the advent of Federal emission standards. For example, model year 1971 vehicles emitted 65 percent less hydrocarbons and 54 percent less carbon monoxide than earlier, uncontrolled (1952-1967) vehicles.

Although there has been an improvement in air quality in many areas, pollutant levels in many AQCRs are still above the primary standards. For example, in Denver, the annual mean of measured particulates in 1972 was twice the

level necessary to protect human health; in Chicago 1.3 times the level; in Pittsburgh 1.8 times; in New York City 1.3 times; in St. Louis 1.2 times; and in Philadelphia the particulate concentration was right at the level necessary to protect human health. The vehicle emission reduction necessary to protect public health is significant in many areas. For example, in Washington, D.C., meeting the standard necessary to protect human health will require a reduction of 67 percent in the amount of hydrocarbons and a reduction of 56 percent in the amount of carbon monoxide (from 1972 levels).

The basic goal of the Clean Air Act is to meet primary standards necessary to protect human health by July 1975, or in cases where the necessary control technology is not available, by 1978. The strategy for achieving and maintaining ambient standards has been directed mainly at reducing emissions from sources. States were required to prepare State Implementation Plans which set emission limitations for existing stationary sources and specify steps to be taken to control pollution from motor vehicles. State and community air pollution control agencies establish schedules for many existing sources that delineate dates by which control equipment must be procured, installed and in operation. Enforcement actionsare taken by the States and communities against sources which do not comply with the State Implementation Plans. In cases where the States fail to meet the requirements of the Clean Air Act, EPA promulgates requirements for installing control equipment or takes enforcement action against noncomplying sources. However, in keeping with the policy of the Act, which places the primary responsibility for air pollution control on States and communities, EPA takes action only in the absence of State or local action. EPA gears its activities toward complementing the efforts of State and local agencies and toward facilitating these agencies' operations, including providing financial support.

In addition, during 1976 two relatively new areas of program concern are to be given increasing priority: one is the maintenace of standards once achieved and the prevention of significant deterioration of air quality; the second is the utilization of flexibility within the Act to assure that environmental goals and goals of energy sufficiency do not unnecessarily conflict.

The Clean Air Act also requires EPA to establish Federal

emission limitations for new stationary sources and for sources emitting "hazardous" pollutants such as asbestos, beryllium, and mercury. EPA encourages States to accept responsibility for enforcing these programs; where States do not accept delegation, EPA is responsible for enforcement.

The Clean Air Act also requires EPA to set national emission standards for new motor vehicles and aircraft. Mobile sources are significant contributors to urban air pollution. Almost all of the carbon monoxide, more than half of the hydrocarbons (and its by-product, photochemical oxidants), and slightly less than half of the nitrogen oxides in our cities come from mobile sources. The burden for compliance with auto emission standards is with the manufacturer. EPA assures compliance primarily by certifying prototype vehicles. In 1976, a new thrust will be to assure that production vehicles comply with emission standards. EPA also has the responsibility to ensure that in-use vehicles meet standards through implementation of the recall, warranty, tampering, and import provisions of the Clean Air Act. In addition, EPA enforces standards to assure the availability of lead-free fuel. To insure that emission control devices are kept in proper working order, States and communities are establishing inspection and maintenance programs.

The Clean Air Act also authorizes research and development work to better define health and welfare effects of pollutants, to define mechanisms of atmospheric transportation and transformation of pollutants, and to develop improved control methods. The research and development program is structured to supply the information base and the technology necessary to support the Agency's standard setting and enforcement activities. Comprehensive knowledge of pollutants, their type, source, occurrence, effects, and atmospheric pathways is necessary if air pollution is to be controlled. The research and development program, therefore, attempts to anticipate the technical needs of the enforcement program, to supply technical assistance for immediate rule-making activities, and to develop data with which to continually evaluate established standards.

Summary of Increases and Decreases

1975 Air Program.....	$154,026,000
Abatement and Control.....	-10,082,200
Reduce in-use vehicle testing program, reduce New Obligational Authority for control agency support (program level remains the same), and phase down academic training program.	
Enforcement.....	+1,270,100
Increase enforcement of mobile source control program.	
Research and Development.....	-7,985,200
Transfer of support to Agency's energy related environmental program.	
1976 Air Program Request.....	137,228,700

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Air
Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control			
Mobile Source.....	$10,290.1	$8,935.4	-$1,354.7
Stationary Source Standards and Guidelines....	6,402.5	6,441.3	+38.8
Ambient Trend Monitoring	3,262.1	2,533.0	-729.1
Technical Assistance....	10,369.6	10,457.4	+87.8
Academic Training.....	1,700.0	1,100.0	-600.0
Control Agency Grants...	55,293.0	47,768.0	-7,525.0
Subtotal.....	87,317.3	77,235.1	-10,082.2
Enforcement			
Stationary Source Enforcement.....	8,544.7	8,891.5	+346.8
Mobile Source Enforceforcement.....	2,205.2	3,128.5	+923.3
Subtotal.....	10,749.9	12,020.0	+1,270.1
Research and Development			
Processes and Effects...	38,426.3	38,437.0	+10.7
Control technology.....	17,532.5	9,536.6	-7,995.9
Subtotal.....	55,958.8	47,973.6	-7,985.2
Total.....	154,026.0	137,228.7	-16,797.3

	1975	1976	Increase or Decrease
End-of-Year Employment			
Abatement and Control			
Mobile Source	170	223	+53
Stationary Source Standards and Guidelines	146	146	...
Ambient Trend Monitoring	80	80	...
Technical Assistance	334	324	-10
Academic Training	...	...	...
Control Agency Support	...	...	...
Subtotal	730	773	+43
Enforcement			
Stationary Source Enforcement	326	333	+7
Mobile Source Enforcement	78	111	+33
Subtotal	404	444	+40
Research and Development			
Processes and Effects	331	346	+15
Control Technology	125	108	-17
Subtotal	456	454	-2
Total	1,590	1,671	+81

Air

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Mobile Source.....	$10,290,100	$ 8,935,400	-$1,354,700
Stationary Source Standards and Guidelines.....	6,402,500	6,441,300	+ 38,800
Ambient Trend Monitoring.....	3,262,100	2,533,000	- 729,100
Technical Assistance.....	10,369,600	10,457,400	+ 87,800
Academic Training.	1,700,000	1,100,000	- 600,000
Control Agency Support.....	55,293,000	47,768,000	- 7,525,000
Total.....	87,317,300	77,235,100	-10,082,200
End-of-Year Employment			
Mobile Source.....	170	223	+53
Stationary Source Standards and Guidelines.....	146	146	...
Ambient Trend Monitoring.....	80	80	...
Technical Assistance.....	334	324	-10
Academic Training	...	...	...
Control Agency Support.....	...	...	...
Total.....	730	773	+43

Purpose

The air abatement and control program is directed to the establishment of ambient air quality standards, assistance to State and local agencies' efforts to implement these standards with control plans, air quality monitoring and emissions surveillance activities, establishment of

emissions standards for both stationary and mobile sources of air pollution, development of procedures for determining compliance with emissions standards, and determining the need for control of pollutants. EPA also assists Federal agencies in bringing their facilities into conformance with air pollution control requirements. Environmental impact statement review helps insure that the activities of Federal agencies have a minimal air pollution impact.

The bulk of EPA's Abatement and Control efforts support State and community agencies, which bear the primary responsibility for controlling pollution. Over 60 percent of the funds in this area are channelled to State and local agencies through control agency grants; EPA's technical assistance, monitoring and training programs directly support State and local efforts. EPA activities in State Implementation Plan development and revision are also aimed at facilitating State actions. First priority attention is paid to the achievement and maintenance of the primary National Ambient Air Quality Standards in those Air Quality Control Regions that are classified Priority I for sulfur dioxide and total suspended particulates.

Air

Abatement and Control

Mobile Source

	1975	1976	Change
Mobile source....	$10,290,100	$8,935,400	-$1,354,700

The mobile source pollution control program includes (1) development of emission and fuel standards for motor vehicles and aircrafts; (2) provision of technical assistance to the States to plan and implement transportation controls; (3) certification of new vehicles and engines for conformity with applicable emission standards; (4) determination of the emissions performance of in-use vehicles; and (5) certification of emissions testing laboratories.

Emission Standards

The standards set for light duty vehicles (including gasoline and diesel powered automobiles and light duty trucks) and aircraft are undergoing constant evaluation in view of the changing technology available for meeting the standards and changes in our understanding of the degree of control required. Under the Clean Air Act, manufacturers also have an opportunity to request an additional suspension of the statutory standards, commencing in January 1975. Work related to the suspension requests will require a substantial effort during the second half of 1975 and the beginning of 1976.

Standards are being developed for motorcycles and work is in process for setting more stringent emission standards for heavy duty and medium duty trucks. The current emission standards for heavy duty vehicle engines are comparatively less stringent than are the emission standards for light duty vehicles. A meaningful heavy duty vehicle test procedure will be developed, on the basis of which the air quality impact of heavy duty vehicle emissions can be documented, and standards justified. In addition, the need for control is being assessed for sulfates emitted from light duty vehicles and polynuclear aromatics from heavy duty diesel powered trucks. All of this work entails the development of testing procedures and measurement techniques.

In addition, this program consists of the assessment of alternative power systems plants and fuels for automotive transportation systems that may have potential for improved fuel economy and emissions performance, and the fostering of use and application of such systems in the development of long term national environmental pollution control strategies.

State Technical Support

Technical support to the States as they plan and implement transportation controls is carried out through the development of information as to the feasibility and effectiveness of transportation control measures and implementation procedures. The development of a test protocol will enable EPA to provide data to the States on the effectiveness of candidate emission control devices in reducing emissions when retrofitted to in-use vehicles. The vehicle is a State responsibility under the Clean Air Act. The Act does not provide authority for Federal action against individuals whose vehicles may not be properly maintained and used.

Motor Vehicle and Engine Certification

Under this program prototype motor vehicles are tested and certified as to their conformance with Federal emission standards. A program under which auto manufacturers voluntarily label new automobiles with fuel economy data is also operated. Data submitted by manufacturers in support of their applications for certification is reviewed and engine classes are selected for emission testing by manufacturers and by EPA. Vehicle tests are then conducted. The workload that will be required in 1976 is approximately the same as in 1975 and is displayed below.

	1976 Model Year		1977 Model Year		Total FY 1976	
Type of Vehicle	A*	B	A	B	A	B
Light Duty Vehicle	...	1,760	315	1,400	315	3,160
Heavy Duty Engines	106	110	...	...	106	110
Motorcycles.....	...	...	60	100	60	100
Total.....	106	1,870	375	1,500	481	3,370

*Key: A=Number of engine families to be certified.
B=Number of confirmatory tests to be carried out.

The certification of model year 1977 vehicles for high altitude operation will also be required in 1976. EPA plans to handle this task through a contractor.

Emissions Performance of In-Use Vehicles

To determine the contribution of in-use vehicles to air pollution, a representative sample of individually owned vehicles is procured and tested by EPA. This information provides a data base from which motor vehicle pollution can be calculated and projected for individual metropolitan areas as well as nationwide. Approximately 1,000 vehicles are tested each year for this purpose.

The testing of in-use vehicles to determine whether recall is necessary is also carried out under this program. Section 207(c) of the Clean Air Act provides that the Administrator may require a manufacturer to recall and fix, at the manufacturer's expense, any class of properly used and maintained motor vehicles if EPA finds a substantial number are in violation of the emission standards. The testing of 3,000 1972 model year vehicles (the first model year to which Section 207(c) is applicable) has been completed. Manufacturers have been requested to furnish additional information on some 1972 model year vehicle classes that were found to be high emitters. A similar testing program has been initiated, covering 1973 and 1974 model year vehicles; approximately 4,000 vehicles are to be tested. However, a reduction of resources in 1976 for this program will eliminate the testing of 1975 model year vehicles to determine in-use emissions.

Certification of Emissions Testing Laboratories

New regulations, due to be proposed soon, will help reduce the burden on importers in sending vehicles to the U.S. for testing, as well as greatly improve EPA's device evaluation and retrofit certification programs. Under these proposed regulations, private laboratories will be certified by EPA to undertake testing and certify the results. It is estimated that approximately 18 laboratories will seek certification (12 in the United States, four in Europe, and two in Japan).

The issue of importers having to send their cars to Ann Arbor (where EPA's test facilities are located) is increasingly being raised by foreign governments (who have

their own governmental, rather than manufacturer, testing facilities) who desire some sort of reciprocal certification as is used in the aviation field. Because reciprocal certification is unacceptable to EPA, it is essential that EPA proceed to certify labs that can make tests and report the results to EPA.

The verification of retrofit devices and the impact on emission of aftermarket parts constitutes an increasing workload which can be handled more efficiently by independent testing laboratories. If the use of independent laboratories is successful, sizeable savings in EPA resources could ultimately be achieved.

1975 Program and Accomplishments

- Complete certification of manufacturer's planned 1975 model year production of light duty vehicles and heavy duty engines for conformity with emission standards;

- Complete emissions testing to allow determination of whether manufacturers should be required to recall any 1973 model year vehicles;

- Monitor the operation of two in-use vehicle inspection and maintenance State programs and distribute guidance material to States on the establishment of in-use vehicle inspection and maintenance programs;

- Operate the 1975 model year voluntary fuel economy labeling program for automobiles and light trucks.

- Issue a report on the assessment of manufacturers' efforts and ability to meet the statutory light duty vehicle emission standards;

- Propose regulations for the certification of emission testing laboratories, emission standards, and test procedures for medium duty vehicles and emission standards and test procedures for motorcycles;

- Complete a fuel economy study with the Department of Transportation as required by the Energy Supply and Environmental Coordination Act of 1974 ;

- Complete an impact study on the feasibility of electric powered vehicles in urban areas; and

- Complete impact studies on the feasibility of use of various alternative fuels.

1976 Plan

- Complete the certification of manufacturers' planned 1976 model year production of light duty vehicles and heavy duty engines for conformity with emission standards;

- Complete emissions testing to allow determination of whether manufacturers should be required to recall any 1974 model year vehicles;

- Continue to provide assistance to the States to implement inspection and maintenance programs and other transportation control measures;

- Operate the voluntary fuel economy labeling program for 1976 model year automobiles;

- Certify independent testing laboratories in the United States and overseas; and

- Begin certification processing of 1977 model year medium duty vehicles and motorcycles.

Purpose of Decrease

The decrease of $1,354,700 results from the elimination of one in-use vehicle emission testing program for model year 1975 vehicles.

Air

Abatement and Control

Stationary Source Standards and Guidelines

	1975	1976	Change
Stationary source standards and guidelines.....	$6,402,500	$6,441,300	+$38,800

This subactivity covers the development of ambient air quality standards, emission standards for stationary sources, and a variety of analyses related to the implementation of the Clean Air Act.

Although National Ambient Air Quality Standards (NAAQS) have been set for six pollutants (particulates, sulfur dioxide, carbon monoxide, nitrogen oxides, photochemical oxidants, and hydrocarbons), work related to their implementation is continuing. For cases in which the controls required to achieve NAAQS result in significant economic and social dislocation, analysis is required to determine the exact nature of the problem and to develop alternatives for problem resolution within the framework of the Act. Examples of this work are the development of EPA's clean fuels policy and transportation control regulations.

Additional issues arising from EPA's implementation of the NAAQS related parts of the Act (generally brought to light by court actions) require the development of revised policies and regulations; such has been the case with the requirement to assure maintenance of ambient air quality standards (including the control of indirect sources of air pollution), the development of long-range air quality maintenance plans and the prevention of significant deterioration which require State decisions as to land-use control for purposes of air quality preservation.

Issues have also arisen with respect to federally promulgated emission regulations. Although National Emission Standards for Hazardous Air Pollutants (NESHAP) have been promulgated for selected sources of asbestos, beryllium, and mercury, issues still remain unsettled with respect to these standards. The lack of coverage of all sources of these pollutants and the difficulty in setting emission limitations for asbestos

sources may require future regulatory action.

New Source Performance Standards (NSPS) have been promulgated for 12 source categories and were proposed for eight additional categories in 1974; it is expected that NSPS will be set for additional sources during 1975-1976. NSPS will continue to be set in the future since they provide the basis for prevention of deterioration of air quality, maintenance of ambient air quality standards, and the control of emerging industries, such as gas turbines, coal gasification, and oil-shale use.

Standards of performance are being developed for sources of fluorides and will be used as the Federal regulatory strategy for this pollutant in the air environment. Control of this pollutant as well as of sulfuric acid mist from sulfuric acid plants will require State control action of existing sources of these pollutants (i.e., the phosphate fertilizer industry and primary aluminum reduction plants) under the provisions of Section 111(d) of the Act. Work is also carried out to determine the need to control additional air pollutants. Under current consideration are, among others, cadmium, particulate polycylic organic matter (PPOM), polychlorinated biphenyls (PBC), lead from stationary sources, and vinyl chloride.

Activities which support the development and implementation of these standards include economic studies of specific industries, comprehensive studies of industries, emissions testing, analyses of source-receptor relationships, analyses of alternative pollutant control strategies, and development of national regulatory strategies. The activities are essential to building an improved data base which is used to develop SIP regulations, improved emissions inventories, analytical tools, and guidance documents for use by State and local control agencies.

1975 Program and Accomplishments

- Promulgate New Source Performance Standards for primary copper, lead and zinc smelters, primary aluminum plants, coal cleaning plants, phosphate fertilizer plants (four processes), electric arc furnaces in the iron and steel industry, and ferroalloy plants;

- Propose New Source Performance Standards for gas turbines;

- Issue State guidelines for standards of performance for existing sources for primary aluminum plants (fluorides), phosphate fertilizer plants (fluorides), and sulfuric acid plants (acid mist);

- Promulgate general regulations to define or establish requirements for source modifications and continuous monitors; and

- Revise and expand coverage of the national emission standards for asbestos (inclusion of two additional manufacturing categories, fabrication processes and waste disposal) and mercury (sewage sludge incinerators).

1976 Plan

- Promulgate New Source Performance Standards for: gas turbines, kraft pulp mills, grain terminals, petroleum refineries (sulfur recovery plants), by-product coke ovens, chlor-alkali plants, lime plants, steam generators (refuse fired), carbon black plants, steam generators (lignite fired), crushed stone plants, electric arc furnaces in grey iron foundries, phosphate rock preparation, sintering plants in steel mills, asphalt roofing, detergent plants, and dry cleaning plants, and

- Promulgate standards for vinyl chloride manufacturing and polyvinyl chloride manufacturing and fabrication.

Purpose of Increase

The increase of $38,800 is to provide for the full year cost of the October 1974 pay raise.

Air

Abatement and Control

Ambient Trend Monitoring

	1975	1976	Change
Ambient trend monitoring.....	$3,262,100	$2,533,000	-$729,100

EPA's ambient air monitoring is carried out by the National Air Surveillance Network and specialized monitoring studies. The bulk of the air quality data, however, is developed by States and localities. Under this program, air quality data submitted by States is analyzed; the EPA air quality monitoring system provides independent verification of State data.

During 1975, efforts are being expanded to meet the needs for air monitoring and analyses related to developing regulations for the State Implementation Plans. Area-specific monitoring will be required to evaluate transportation control plan revisions, to review plans for the maintenance of ambient air quality standards, and to evaluate and promulgate regulations to prevent the significant deterioration of air quality.

Additional monitoring activities will include studies of high oxidant levels in rural areas, smelter and power plant monitoring, assessment of the air quality impact of the use of higher sulfur fuels due to existing low sulfur fuel shortages, and the sampling and analysis of both regulated and nonregulated pollutants (e.g., vinyl chloride) in special or emergency situations. The sharply increasing amount of ambient data becoming available will enable EPA to provide more frequent and sophisticated analyses of national trends in air quality. Analyses of these trends, including the recommendation for control actions, will be carried out in support of the achievement of EPA's objective to achieve primary standards for SO_2 and particulates in Priority I Air Quality Control Regions. Emphasis will also be given to achieving further improvements in storing and disseminating ambient data.

1975 Program and Accomplishments

- Establish improved quality control programs for the State ambient data gathering programs;

- Complete preliminary determinations of the status of compliance of Air Quality Control Regions with National Ambient Air Quality Standards;

- Provide technical guidance and program direction to ensure that all required State monitoring sites are in operation and generating valid data;

- Perform monitoring activities and analyses relative to State Implementation Plan revisions and/or additions; and

- Perform selected special monitoring projects, such as the study of oxidant levels in rural areas and the surveillance of possible problem areas.

1976 Plan

- Initiate a Federal-State program for collection and analysis of ambient data for nonregulated pollutants;

- Install automated air quality data handling systems in 12-15 State and local control agencies;

- Continue monitoring activities and analyses relative to State Implementation Plan requirements;

- Continue providing guidelines and direction to States and local agencies in monitoring operations and data analysis;

- Continue the assessment and development of national trends in air quality;

- Develop a rapid response capability for obtaining air quality information for special studies (examples: lead, sulfates, vinyl chloride, hexachlorobenzene);

- Continue the operation and improvement of national air data banks; and

- Compile a directory of monitoring sites.

Purpose of Decrease

The decrease results from the elimination in 1976 of a "one-time" congressional increase of $750,000 in 1975 offset by an increase to provide for the full-year cost of the October 1974 pay raise.

Air

Abatement and Control

Technical Assistance

	1975	1976	Change
Technical Assistance.....	$10,369,600	$10,457,400	+$87,800

This program includes the provision of technical information and assistance to State and local agencies; the review, approval, or promulgation of State Implementation Plans; the review of environmental impact statements; the surveillance of other Federal agencies' activities to assure compliance with standards; and the conduct of manpower training programs.

Technical Information and Assistance

This program covers primarily the performance of analyses to determine the adequacy of State Implementation Plans (SIPs) and the development, if necessary, of substitute plans for promulgation by EPA. In support of the SIPs, analytical procedures are developed and provided to the States for the preparation of adequate SIPs and revisions. Progress reports, which describe the accomplishments of the States in carrying out their implementation plans, are prepared twice a year. Technical assistance also incorporates activities related to the expansion and improvement of the national data bank of pollutant emissions and air quality information. This information is used to assess national air quality and emission trends, as well as to determine the need for SIP revisions.

Federal Activities

The purpose of this program is to assure that Federal agencies develop plans and programs to meet national air pollution program goals. Executive Order 11752 requires that Federal facilities comply with substantive requirements of SIPs and Executive Order 11514 requires Federal agencies to prepare environmental impact statements on proposed actions. EPA assists Federal agencies in fulfilling their responsibilities under these two Orders. Activities include provision of technical advice and assistance to Federal agencies, monitoring their programs for achieving the standards, reviewing compliance strategies among Federal agencies, and providing assistance in preparing statements on the environ-

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mental impact of proposed activities.

Manpower Training

The object of the training program is to help meet manpower needs of State and local programs by providing their personnel with state-of-the-art information on pollution control systems and air pollution control strategy analysis and development. The program includes the development and delivery of short courses for improving the skills of air pollution control personnel at the entry and advanced levels and the assessment of national training needs in air pollution control.

1975 Program and Accomplishments

- Monitor State progress in attaining air quality standards, as stipulated in SIPs, and recommend corrective action;

- Provide two semiannual SIP progress reports;

- Implement new and expanded computer systems for the storage, retrieval and analysis of emissions and related data;

- Publish updated and new emission factors for pollution source categories;

- Upgrade the national technical data base by including emission inventories from all Federal facilities required to report;

- Provide training for approximately 3,500 personnel; and

- Develop and distribute five packaged self-instructional courses.

1976 Plan

- Continue review of progress and development of reports on attaining air quality standards as required by State Implementation Plans;

- Publish updated and new emission factors for pollution source categories;

- Publish documents providing guidance to States in handling and evaluating air quality and emission data;

- Compile and update area source inventories for all States and territories;

- Acquire and store additional source inventory information for hazardous and trace materials;

- Continue to update emission inventories and data from Federal facilities;

- Provide training for approximately 3,500 personnel;

- Develop and distribute five packaged self-instructional courses; and

- Continue to publish technical information abstracts and disseminate information from a central technical information center.

Purpose of Increase

The increase of $87,800 is to provide for the full-year cost of the October 1974 pay raise.

Air

Abatement and Control

Academic Training

	1975	1976	Change
Academic Training...	$1,700,000	$1,100,000	-$600,000

To help meet national needs for professional air pollution control manpower, EPA supports professional training with grants to universities and directly to individuals. This support has stimulated the establishment of competent programs in leading universities over the country. Assistance to individuals with direct fellowship awards will continue in 1976 with emphasis placed on professional development at the graduate level for employees of State and local agencies who are already on the job.

1975 Program and Accomplishments

- Train 70 State and local agency professional employees at the graduate level through fellowship awards direct to the individuals, and

- Support graduate training at 12 institutions for 120 students. Courses of study will be designed to develop pollution abatement practitioners or to provide skills needed for support of pollution abatement programs.

1976 Plan

- Train 70 State and local agency professional employees at the graduate level through fellowship awards direct to the individuals, and

- Support graduate training for 100 students. Courses of study will be designed to develop pollution abatement practitioners or to provide skills needed for support of pollution abatement programs.

Purpose of Decrease

The decrease represents the beginning of the phase-out of the academic training grant program.

Air

Abatement and Control

Control Agency Support

	1975	1976	Change
Control agency support.....	$55,293,000	$47,768,000	-$7,525,000

Assistance is provided to State and local agencies through grants, assignment of personnel to State agencies, special contract support, and demonstration grants. The primary purpose of these support activities is to assist State and local agencies to develop and implement plans to achieve and maintain ambient air quality standards. Grant funds provide for conducting control programs in their entirety and include monitoring, enforcement, administration, laboratory services, and other activities. In general, the control agencies are encouraged to use these funds in a manner consistent with national priorities, such as the achievement of primary National Ambient Air Quality Standards for SO_2 and particulates in Priority I Air Quality Control Regions.

For cases in which States require special assistance for the performance of specialized tasks, such as the development of emission inventories, revisions related to transportation control plans, maintenance of standards, and plans to prevent significant deterioration, the services of EPA contractors are available. EPA enters into contracts with a series of firms for services to be provided upon call. This arrangement greatly speeds up the availability of contractors' services to States and permits States to comply with the short deadlines imposed by the Clean Air Act and related court orders. To bolster State capability, EPA personnel are assigned to State and local agencies under two year term appointments.

1975 Program and Accomplishments

- Support air pollution control programs of approximately 210 agencies in 50 States, the District of Columbia and territories;

- Provide State assignees to State and local control agencies; and

- Provide special assistance (contracts and demonstration grants) to States.

1976 Plan

- Continue support to control agencies to help meet State Implementation Plan requirements and activities;

- Provide State assignees to State and local agencies; and

- Provide special assistance (contracts and demonstration grants) to States.

Purpose of Decrease

The decrease of $7,525,000 reflects the deferral of $3,750,000 to 1976. These funds were added by the Congress in 1975. While the New Obligational Authority shows a large drop from 1975 to 1976, the funds available for obligation will remain the same ($51.5 million).

Air

Enforcement

	1975	1976	Increase or Decrease
Budget Authority			
Stationary Source Enforcement.....	$8,544,700	$8,891,500	+$346,800
Mobile Source Enforcement.....	2,205,200	3,128,500	+923,300
Total.....	10,749,700	12,020,000	+1,270,100
End-of-Year Employment			
Stationary Source Enforcement.....	326	333	+7
Mobile Source Enforcement.....	78	111	+33
Total.....	404	444	+40

Purpose

The air enforcement program is directed toward acheiving compliance with the standards and regulations established for stationary and mobile sources of air pollution under the provisions of the Clean Air Act. The stationary source enforcement program is undertaken to bolster and stimulate State enforcement of State Implementation Plans, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants. The mobile source enforcement program is primarily a Federal effort directed toward achieving compliance with fuel and motor vehicle emission standards and regulations.

The Clean Air Act of 1970 places the primary responsibility for development and enforcement of regulations limiting emission of pollutants upon the States. EPA's primary objective regarding the stationary source enforcement program is to assist and stimulate State enforcement programs. Activities thus far have focused on identifying major sources of pollution, ascertaining compliance status, developing enforceable compliance schedules for sources not in final

compliance, and assuring compliance with final emission limitations or increments of progress contained in compliance schedules. In 1976, we will need to give more attention to certain problem urban areas where efforts to meet primary health related standards prove inadequate. Air Quality Maintenance Plans will also require regulating both major and minor sources not previously covered and, in some instances, emission limitations will have to be made more stringent. The promulgation of new NSPS and NESHAP regulations plus an increase of sources affected will call for greater effort in the surveillance and enforcement of these standards.

The Clean Air Act provides a variety of enforcement tools to achieve the necessary reductions in pollutants from automotive vehicles, which as a class constitute the largest single contributor to the Nation's air pollution problems. In the mobile source enforcement program for new motor vehicles, inspection of vehicle manufacturers' production certification procedures and qualifying manufacturer's assembly line test facilities constitute the major thrust of the 1976 program. These efforts will support the prototype certification program funded under the Abatement and Control appropriations. With respect to vehicles in use, the major thrust of the program is to use EPA's authority to order recall of vehicles not conforming to emission standards during their useful life. The production and performance warranty provisions of the Act are also designed to help assure that manufacturers develop and produce vehicles that meet standards throughout their useful life. EPA plans to make these warranties meaningful remedies for purchasers of non-conforming vehicles in 1976. Other activities of the mobile source enforcement program include the enforcement of the tampering provision which makes it a prohibited act for any manufacturer or dealer knowingly to remove or render inoperative a vehicle emission control system after sale of the vehicle; enforcement of Transportation Control Plans for urban areas; and a nationwide fuels surveillance/enforcement program to assure the general availability of unleaded gasoline vital to the maintenance of catalytic converters.

Air

Enforcement

Stationary Source Enforcement

	1975	1976	Change
Stationary source enforcement.....	$8,544,700	$8,891,500	+$346,800

The stationary source air enforcement program is designed to effectively utilize the enforcement authorities provided by the Clean Air Act to ensure nationwide compliance with State Implementation Plans (SIP's), New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). EPA's stationary source enforcement program consists of monitoring and evaluating State enforcement programs; providing technical, legal, and case development assistance to State programs; field surveillance and compliance monitoring of major sources; encouraging States to request enforcement authority for NSPS and NESHAP; and enforcing SIP and NSPS/NESHAP requirements to support and stimulate State efforts.

The responsibility for enforcing State developed, EPA approved, emission limitations is shared by EPA and the States. The Clean Air Act recognizes that States have primary responsibility for achieving clean air within their jurisdiction. When States do not enforce air pollution standards, however, the Act requires EPA to take action. In accordance with the intent of the Act, the EPA air enforcement program is designed to ensure that all sources achieve compliance with applicable standards. EPA bolsters State air enforcement efforts by supporting State control agencies through control agency grants, providing specialized skill and expertise or special contractual efforts, and by taking enforcement actions against selected sources when the States cannot or will not enforce.

EPA has first responsibility for the enforcement of Federal emission standards it promulgates. However, both Section 111 (New Source Performance Standards) and Section 112 (National Emission Standards for Hazardous Air Pollutants) provide for State enforcement of all or a portion of these standards. In accordance with the intent of Congress, and to further the objective of new federalism, high priority has been placed on encouraging states to request delegation

of these standards. After delegation, EPA will actively overview the enforcement of these standards.

1975 Program Plans

State Implementation Plans:

Success in enforcing State implementation plans is hinged upon the accomplishment of four major tasks:

- The identification and investigation of possible violators to determine their compliance status;
- Assurance that expeditious compliance schedules are established for violators;
- Assurance that the increments of progress in compliance schedules are met in a timely manner; and
- Assurance that sources initially found in compliance or sources that come into compliance continue to meet emission requirements.

State and Federal programs face an immense task since there are estimated to be over 200,000 stationary sources subject to SIP emission standards. Of this number, between 18 and 20 thousand are "point sources" (facilities individually capable of emitting over 100 tons per year of a single pollutant, as a class responsible for approximately 85 percent of all pollutants from stationary sources). EPA enforcement efforts have been directed almost exclusively therefore, to ensure compliance by this class of emitters.

By the end of 1974, some 16,400 "point" sources had been identified and investigated by States and EPA. Of these, over 10,200 sources were complying with applicable emission standards and about 2,500 were on EPA and State approved compliance schedules. Of the roughly 3,800 remaining 100 ton sources, about 1,500 had State schedules which were being reviewed by EPA for Federal approval; the compliance status of roughly 2,000 more was in the process of being verified, and State or EPA enforcement actions were pending for the remainder.

In 1974, EPA conducted 3,155 investigations (1,987 formal inquiries and 1,168 plant inspections or emission tests) to determine source compliance status and took 275 enforcement actions (228 notices of violation and 47 enforcement orders or civil/criminal actions) to secure source compliance.

In numerous instances, the initiation of an EPA enforcement action has triggered action by the States.

Implicit in EPA's role of ensuring that the Clean Air Act is implemented is the responsibility to ensure that source compliance is maintained once achieved. To ensure that the environmental gains produced by the initial enforcement effort are not lost, efforts by both the States and EPA were initiated in 1975 to annually verify the compliance status of all point sources.

Barring discovery of serious compliance problems in State programs by EPA's compliance monitoring efforts, 85 percent of all point sources will be brought into final compliance by July 1975. Although this will significantly reduce air pollution emissions, it is anticipated that in some 80 or more Air Quality Control Regions, achievement of health related ambient air quality standards for particulate matter and sulfur oxides will be delayed beyond the attainment dates set by the Clean Air Act. The 15 percent of point sources in violation after July 1975 will contain many of the Nation's largest polluters (including power plants, industrial/commercial boilers, and heavy industries such as steel manufacturing). Priority enforcement programs are being conducted during 1975 to ensure that expeditious compliance schedules are established for these categories of point sources. In many of the "problem" AQCRs, however, compliance by major emitters alone will be insufficient to achieve the air quality goals set pursuant to the Act. Numerous violations by smaller sources are thought to be the reason for poor air quality in most of these areas. In 1976, EPA and State resources utilized to obtain compliance by point sources, not needed to ensure their continued compliance in compliance monitoring programs, will be directed towards ensuring compliance by these lesser emitters.

New Source Performace Standards and National Emission Standards for Hazardous Air Pollutants:

The first five categories of sources subject to NSPS affect the design of between 20 to 70 new and modified sources each year. A second group of NSPS new source standards covering an additional seven source categories was promulgated on March 8, 1974; additional standards to be promugated in 1975 will bring the total number of sources annually subject to these standards to 1,500 in 1976.

NESHAP regulations were first promulgated regulating the emissions of asbestos, mercury, and beryllium from some 600

fixed installations and an estimated 30,000 annual building demolitions and asbestos spray operations. Amendments to these standards were proposed to include an additional 200 fixed installations. Further amendments (except perhaps for vinyl chloride) to these regulations are not anticipated before 1976.

In 1974, over 100 detailed investigations were made which produced about 25 sources that were subject to the first set of NSPS; five of these are now operating in full compliance while the remainder are still being built. With respect to NESHAP, all 600 of the fixed stationary emitters of hazardous pollutants have been investigated by the EPA regions; 500 of these were determined to be in compliance with the allowed emission limits while the remaining 100 were placed on schedules to comply before April 1975. Less than 10 percent of the 30,000 building demolitions and asbestos spraying operations were investigated, however, due to limited EPA resources.

Delegation of the major portions of NSPS and NESHAP enforcement authority to States is a high priority of the Agency's air enforcement effort. The 1975 program plans target delegation of NESHAP enforcement to 38 States and NSPS to 37 States. The delegation process has been streamlined and the degree of delegation can be tailored to the State's strengths (i.e., delegations can be made for a single pollutant, source category, or even program effort such as compliance monitoring, field investigation, or enforcement proceedings). In addition, about five percent of the State control agency grants from EPA are set aside for issuance to those States which are delegated significant portions of NSPS and NESHAP. It is hoped that this inducement, coupled with the tailoring of delegations and simplification of procedures, will result in close to the targeted amount of delegation in 1975.

1975 Accomplishments

SIP's:

The 1975 program is designed to:

- Identify and investigate 98 percent of the 100 ton sources, through EPA and State efforts;

- Have 85 percent of the 100 ton sources in compliance with SIP emission limitations through State and EPA coordinated efforts;

- Implement programs to ensure:

  -- annual compliance status verification of all 100 ton sources by States and/or EPA, and

  -- that progress of all 100 ton sources on schedules is monitored by State and/or EPA;

- Utilize control agency grants to track and improve State efforts;

- Conduct 3,280 EPA field investigations to determine source compliance;

- Initiate 690 enforcement actions (notices of violation, enforcement orders, and civil or criminal suit referrals to Justice Department);

- Continue to provide technical and legal assistance to States to stimulate the development of strong, effective State enforcement programs; and

- Implement priority enforcement programs for categories of major emitters violating emission requirements.

NSPS and NESHAP:

- Achieve 90 percent compliance by sources subject to NESHAP requirements (remainder on schedule) except for spraying and demolition sources;

- Delegate NESHAP to 37 States;

- Achieve 100 percent compliance by sources subject to NSPS; and

- Delegate NSPS to 38 States.

1976 Plan

The compliance monitoring programs initiated in 1975 will become even more important in 1976. Sources brought into compliance by the installation of pollution control equipment will need to be checked frequently to assure continue compliance.

Since proper operation and maintenance of abatement controls is difficult and expensive, widespread violations of standards may occur without an adequate State and EPA surveillance effort. As in 1975, EPA will also need to devote special attention to ensuring that some categories of heavy emitters achieve and maintain compliance with applicable emission limitations.

Tentative projection from air quality data indicates that a significant number of Air Quality Control Regions (primarily major urban areas) will not meet NAAQS by the statutory deadline. The reasons for this are manifold but among them is the need to more effectively enforce the present requirements in SIP's and to revise those requirements that need to be made more stringent. In those areas not meeting health related standards, EPA and State enforcement efforts will not only have to strengthen their surveillance/enforcement related to point sources but may also have to focus increased attention on sources emitting less than 100 tons annually.

The attainment and maintenance of NAAQS in 1976 will undoubtedly require EPA and the States to focus on a much larger universe of sources in certain areas. Compliance schedules will have to be developed for the sources coming under control for the first time as well as for a number of minor sources. In some instances compliance schedules now in place will have to be made more stringent. In both instances, the challenge facing the EPA and State compliance monitoring and enforcement efforts will be significantly greater than in past fiscal years. Resources not required for monitoring the compliance of major emitters brought into conformance with applicable emission limits in past fiscal years will be applied to ensuring compliance by selected categories of minor emitters in 1976. While full compliance will not be achieved in 1976 by all these smaller sources, the increased effort should result in the most rapid progress towards clean air.

NSPS/NESHAP

An estimated 1,500 sources are expected to be covered by 30 NSPS source categories in 1976 as compared to the 750 sources affected during 1975. This increasing coverage will require EPA to focus more attention on NSPS enforcement activities pending delegation to States.

For NESHAP, it is anticipated that approximately 250 asbestos sources and 200 sewage sludge (mercury) incinerators are expected to be added to the universe of sources covered by

NESHAP in November 1974, plus about 35 vinyl chloride sources. Given the anticipated level of State delegation, this increase in coverage will require additional EPA effort to assure compliance.

In addition to the increased coverage of sources as a result of NSPS/NESHAP promulgations, EPA is expected to publish regulations to implement Section 111(d) of the Clean Air Act relating to "noncriteria" pollutants. Standards are expected during 1975 for fluorides and sulfuric acid mist covering more than 450 major industrial facilities. Both of these programs will rely heavily on delegated State activity as no additional resources are available within EPA.

1976 Objectives

SIP's:

The 1976 program is designed to:

- Achieve 90-95 percent compliance by 100 ton sources with SIP emission limitations;

- Verify compliance status of 100 percent of 100 ton sources through coordinated EPA and State compliance monitoring programs;

- Continue to utilize control agency grants as an incentive to improve State efforts;

- Continue to provide technical and legal assistance to States to ensure strong and effective enforcement programs;

- Conduct 3,500 EPA field investigations to determine source compliance status;

- Initiate 700 EPA enforcement actions (notices of violation, Enforcement Orders, civil/criminal suit referrals)to the Justice Department;

- Continue to implement priority enforcement programs for categories of major emitters;

- Initiate intensive enforcement program for Air Quality Control Regions exceeding the health related air quality standards; and

- Establish centralized compliance monitoring technical capability as part of existing ORD/NERC Durham operation.

NESHAPS:

- Achieve 98 percent compliance by sources subject to NESHAPS, excluding spraying and demolition sources;

- Achieve 80 percent compliance by spraying and demolition sources subject to NESHAPS;

- Delegate new amendments of NESHAPS to 30 States and increase the number of States delegated major portions of NESHAPS to 45; and

- Implement coordinated EPA and State compliance monitoring programs for sources subject to NESHAPS.

NSPS:

- Achieve 90 percent compliance by sources subject to NSPS;

- Delegate new categories of NSPS to 35 States and increase the number of States delegated major portions of NSPS to 48; and

- Implement coordinated EPA and State compliance monitoring programs for NSPS sources.

Purpose of Increase

Resources requested will allow for continuation of EPA efforts to strengthen and bolster SIP compliance and compliance with NSPS/NESHAPS. In addition to a continuation of on-going efforts, the requested increase will give EPA the ability to provide the additional technical capability to regions which they require in support of their stationary source surveillance enforcement efforts. This capability, located at the existing Research Triangle Park, North Carolina facility, will also provide essential interface with the National Environmental Research Center/Office of Research and Development operations impacting enforcement. The staff will consist of specialists with expertise in air pollution monitoring (stack and ambient) measurement needed at various times by regions but which have not been easily available since it is

not cost effective for each Region to hire full time experts. The main purpose of this small but talented group will be to provide expert technical support to EPA Regional and State enforcement programs in the development and defense of compliance status of stationary sources throughout the country. The staff will interface with the Office of Research and Development to ensure that studies concerning remote sensing monitoring and emissions recording produce viable field enforcement tools.

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Air

Enforcement

Mobile Source Enforcement

	1975	1976	Change
Mobile source enforcement.....	$2,205,200	$3,128,500	+$923,300

The mobile source enforcement program is directed primarily toward achieving compliance with vehicle emission standards and fuel regulations promulgated by EPA under provisions of the Clean Air Act. The activities of the program include preventing introduction of uncertified new domestic and imported vehicles into commerce; auditing certification procedures of domestic and foreign automobile manufacturers; enforcing vehicle assembly line emission test activity and the recall, warranty and tampering provisions of the Act; developing and enforcing Federal regulations on the availability of regulated fuels; and ensuring compliance with Transportation Control Plans and mobile source aspects of the Air Quality Maintenance Plans.

The activities of the mobile source enforcement program complement the Agency's certification program for prototype new motor vehicles by assuring that manufacturers follow acceptable certification practices; that assembly line vehicles also meet emission limitations; that imported vehicles meet the same standards as domestically produced automobiles; and that the in-use regulatory provisions on recall, warranty and tampering are applied to ensure that vehicles continue to meet standards throughout their useful life.

Enforcement of the transportation control plans is included as part of the mobile source enforcement program since these plans basically require regulation of automobile emissions and usage in order to achieve the national ambient air quality standards. Enforcement efforts include monitoring State and local implementation of control strategies which include motor vehicle inspection and maintenance programs, vapor recovery control systems, and vehicle mile travel reduction measures. In addition, the mobile source enforcement staff will be involved in the development and implementation of air quality maintenance

plans in those areas with automotive related pollution problems.

1975 Program and Accomplishments

New Source Activities:

The 1975 program is designed to:

- Perform 25 inspections of all major domestic and foreign vehicle manufacturers certification and production compliance programs and conduct 10 investigations of possible violations and refer violations to the Department of Justice for prosecution;

- Promulgate regulations and begin implementation of a selective enforcement audit program for production vehicles and issue 30 test orders to assembly plants to test vehicles on the assembly line;

- Promugate exemption and exclusion regulations defining which vehicles are subject to Clean Air Act Requirements; and

- Promulgate regulations for catalyst replacement of imported vehicles which have been operated overseas where unleaded fuel is not available.

In-Use Activities:

- Initiate 20 investigations of potential tampering violations and refer cases requiring enforcement action to the Department of Justice for prosecution;

- Update Inspector's Guidebook on tampering;

- Initiate investigations for potential recall orders, issue and audit recall orders, and review self-initiated recalls by manufacturers;

- Promulgate recall regulations establishing procedures for implementing recall provisions for the Clean Air Act;

- Promulgate defect reporting regulations for use in enforcing recall and warranty provisions of the Clean Air Act;

- Develop Section 207(a) warranty defects list defining area of coverage by manufacturer vehicle emission warranty; and

- Monitor the importation of over three million vehicles and engines for compliance with emission control regulations, initiate investigations of illegal importations, issue 360 orders that nonconforming vehicles be modified, exported, or bonds thereon forefeited, and refer violations to the Department of Justice for prosecution.

Fuels

- Initiate a national fuels enforcement program and conduct 20,000 fuel inspections of gasoline retail outlets;

- Promulgate leadfree fuel regulations for issuance of step sale notices of contamination at retail gasoline outlets, establish hearing procedures for penalty assessment for violations of gasoline regulations, and for imposition of reporting requirements on suppliers and retailers of leadfree gasoline; and

- Promulgate regulations increasing the general availability of unleaded gasoline in rural counties.

1976 Plan

New Sources:

Although the Clean Air Act provided EPA with the authority and responsibility to test production line vehicles, the Agency has not yet implemented such a program and has relied primarily on the certification of prototype vehicles to assure that new vehicles meet emission standards. Although there have been some reductions in vehicle emissions since the start of the certification program, data available to the Agency suggests that certification alone does not assure that production vehicles will meet standards. Mass production techniques may result in vehicles having different emission characteristics than prototypes, even though designs are identical. Therefore, the Agency has launched a pilot program to test assembly line vehicles in 1975.

Plans call for inspecting both domestic and foreign assembly plants which number at least 68 (50 in North America, 10 in Europe, and eight in Japan). The requested increase provides for the development of an EPA Mobile Enforcement Testing System (METS). The METS system will be used for the purpose of qualifying manufacturers assembly line test facilities where additional testing capability is required to enable the manufacturer to respond to an SEA test order. The METS concept will also be used to perform enforcement related emissions testing at high altitude locations such as Denver, Colorado.

Fuels:

The 1975 fuels program consists of six headquarters and 20 regional office positions. It is the responsibility of the regional staff to sample and test gasoline retail outlets using a mobile laboratory van and a quick screening test. Laboratory, legal, and administrative support must also be provided to the field outlet inspection aspect of the program. We plan to inspect 2,000 suppliers per region or 20,000 nationally. In 1976 we will seek greater assistance from the States to enable a greater volume of retail service station inspections in those regions or the country having relatively larger volumes of service stations. This will assure that each service station would have about a 17 percent probability of being inspected each year.

In-Use:

The activity of the recall program is expected to increase in 1976. Plans call for the promulgation of regulations requiring manufacturers to report defects in emission control components, formalization of fleet and State contacts to obtain defects data, and computerization of a defect reporting system to handle the volume of data anticipated. Caseload is expected to triple as a result of the defect reporting regulations. Quarterly and annual publications of recall activity are also required by the recall procedural regulations and substantial public interest can be expected in this area.

There are two warranty provisions in the Clean Air Act related to emission controls. The warranty provisions are intended to help assure that manufacturers develop and produce vehicles which meet emission standards throughout their defined useful life of 50,000 miles or five years. The resources requested in 1976 will enable EPA to enforce final regulations covering defects which cause emissions to exceed standards. Although the "defects list" is intended to be largely self-enforcing through consumers claims for service under the warranty, EPA resources will be needed to monitor manufacturers' responses and to update the defects list. A significant increase in warranty investigation is anticipated as a result of publication of the defects list.

Transportation Control:

Transportation Control Plans have been promulgated for 20 States and the District of Columbia covering 34 metropolitan areas. During 1975 and 1976, additional plans may be required for up to 15 additional metropolitan areas. In addition, Air Quality Maintenance Plans will require approximately 160 urban areas to undergo extensive air quality analysis and a number of revisions to existing TCP's can be expected. In 1976 we plan to monitor and enforce implementation of existing TCP's to work extensively with local agencies to assure enforceability of new or revised plans, and to take necessary actions against those localities in the event that TCP's are not implemented as proposed.

1976 Objectives

New Source Activities:

In 1976, EPA plans full implementation of the Mobile Enforcement Testing System for production vehicles and anticipates the issuance of about 60 test orders to assembly plants to test vehicles on the assembly line. EPA will perform inspections of all major domestic and foreign vehicle manufacturers' certification and production compliance programs, and will conduct investigations of possible violations.

The aftermarket parts program is an integral part of EPA's warranty and recall functions. In order to alleviate the potentially anticompetitive impact of recall and warranty provisions on the aftermarket parts industry, EPA has committed itself to implementing in 1976 a voluntary self-certification program for certain emission related aftermarket parts. This program will allow the aftermarket parts industry to compete with the original equipment manufacturers while at the same time protecting warranty provisions and controlling emissions. Implementation of the aftermarket program is planned for 1976 and resources are requested to enable EPA to support industry efforts to identify emission related aftermarket parts and to establish test procedures for certifying these parts. EPA resources will also be used to audit and monitor manufacturers' test procedures and to establish test procedures for certifying these parts. EPA resources will also be used to audit and monitor manufacturers' test procedures and to monitor aftermarket parts sales to ensure that actual sales conform with certification.

Implementation of the performance warranty provision with a short test correlatable to the Federal test procedure is also planned for 1975. If the Agency is successful in developing a short test in 1975, regulations will be promulgated and State and local authorities will be encouraged to adopt the short test so that preperly maintained and used vehicles failing such a test could have their emission related parts replaced under the warranty.

In-Use Activities:

EPA will continue to investigate potential tampering violations, monitor the importation of vehicles and engines for compliance with emission control regulations, investigate illegal importations, and issue orders that nonconforming vehicles be modified or exported.

The Agency expects to initiate investigations for potential recall orders, issue recall orders, review self-initiated recalls, and implement the performance and defect warranty provisions of the Act.

A voluntary aftermarket parts certification program to protect competition in the after market will also be implemented.

Fuels:

The fuels enforcement program with State assistance will be expanded to allow EPA to increase inspections of gasoline retail outlets from approximately 20 thousand in 1975 to about 30 thousand in 1976.

Transportation Plans:

EPA will continue to monitor the implementation of TCP's for metropolitan areas, will participate in the development and implementation of new TCP's for those Air Quality Control Regions requiring additional control measures, and will assist in the review, development, and implementation of air quality maintenance plans.

Purpose of Increase

The requested increase will provide resources for additional new source and in-use activities which include implementation of the METS program; continued monitoring of the importation of vehicles; implementation of the defect warranty provisions; implementation of the performance warranty provision; ensuring compliance by retail gasoline outlets with unleaded fuel regulations; continued surveillance of in-use vehicles to ensure compliance with recall and tampering provisions of the Clean Air Act; implementation of a voluntary aftermarket parts certification program; and ensuring State enforcement of TCP's.

Air

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and Effects.....	$38,426,300	$38,437,000	+$10,700
Control Technology.....	17,532,500	9,536,600	-7,995,900
Total.....	55,958,800	47,973,600	-7,985,200
End-of-Year Employment			
Processes and Effects.....	331	346	+15
Control Technology.....	125	108	-17
Total.....	456	454	-2

Purpose

The air research and development program is designed to furnish EPA with the knowledge to establish prudent environmental controls based upon known or potentially adverse health and ecological effects; to define, develop, and demonstrate systems for controlling stationary sources; and to evolve strategies for minimizing the emission of pollutants.

To achieve these ends, the program is structured to quantify the effects of air pollutants on man, animals, plants, and the general environment; develop predictive models for pollutant emission, transport, transformation, and removal, and verify these models by actual measurements; develop and standardize techniques for the management of pollutants; and develop new and improved technology for preventing and controlling air pollution and demonstrate the cost effectiveness of such technologies.

Air

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects.....	$38,426,300	$38,437,000	+$10,700

Research on air processes and effects provides a sound scientific basis upon which to establish and continually evaluate both primary and secondary ambient air quality standards. Research is accomplished in a number of program areas including health effects, ecological processes and effects, equipment and techniques research, and socio-economic studies.

Health effects research involves epidemiological, clinical, and toxicological studies of the impact of air pollutants on the health of man.

Ecological processes and effects research encompasses four major catergories, (1) meteorological research to determine pollutant transport mechanisms; (2) investigations of chemical and physical pollutant processes; (3) determination of the environmental impact of fuel, fuel additives, and catalytic reactor emission-control devices; and (4) assessment of the effects of pollutants upon plants and animals.

Equipment and techniques research develops and improves methods and instrumentation for the measurement of air pollutants in ambient air and from mobile stationary emission sources.

The socio-economic research effort develops cost benefit analyses of various air pollution control strategies.

1975 Program

The objectives for air processes and effects research in 1975 included: (1) expansion of on-going epidemiological and toxicological studies on health effects of exposure to carbon monoxide, nitrogen oxides, sulfur oxides, photochemical oxidants, and hydrocarbons; (2) expansion and acceleration of studies of the health effects of exposure to mobile source emissions and emission products, particularly those associated with vehicles equipped with oxidation catalysts; (3) continuation

of the assessment of toxicologic effects of trace metals, including lead, cadmium, arsenic, and selenium; (4) expansion of studies to determine roadside levels of sulfate and catalytic reactor attrition products; (5) expansion of studies on the chemical and physical processes of atmospheric pollutants with special emphasis on the transformation and transport and photochemical oxidants and sulfates; (6) strengthening support of the National Secondary Air Quality Standards for sulfur dioxide by providing plant biochemical indices of air pollution damage; (7) development of measurement methods for particulate organic matter; (8) validation of improved mobile source pollution control methods; (9) improvement of particulate mass and size determination methods; (10) development of odor measurement methods; (11) field test of open path spectral monitors; (12) development and evaluation of multipollutant analyzers; (13) Development and evaluation of prototype x-ray fluorescence analyzer; (14) assessment of the social and administrative feasibility of least-cost control strategies for stationary air pollution sources; and (15) comparision of the effectiveness of regulations vs. emissions charges for achieving ambient SO_2 standards.

1975 Accomplishments

The past year's achievements of the processes and effects program on air pollution include the:

- Publication of the first annual research report on pollutants from vehicles equipped with oxidation catalysts. Results were compiled on all catalyst-related studies in the Office of Research and Development and the Office of Air and Waste Management, including all current results from studies on roadside sulfate levels and noble metal attrition products. Results are expected to contribute to EPA's assessment of mobile emission standards for regulated and non-regulated pollutants;

- Completion of preliminary assessments on potential effects of exposure to compounds of mangenese and cerium which may be associated with mobile source emissions -- this information will be used to evaluate the health impact of fuel additives which may be substituted for lead;

- Publication of a monograph on the health effects of exposure to sulfur oxides--results compiled were obtained from the human epidemiology studies or

Community Health Environmental Surveillance Study (CHESS), program and indicate that adverse health effects may be more closely associated with exposure to sulfate compounds than to sulfur dioxide;

- Completion of developmental phases of design and hardware for a system for intensive environmental and human health characterization--this system includes the Community Health Air Monitoring Program (CHAMP), the Clinical Laboratory Evaluation and Assessment of Noxious Substances (CLEANS), and the Clinical Laboratory Evaluation and Verification of Epidemiological Results (CLEVER);

- Expansion of on-going research on air pollutants for which primary ambient air quality standards have been promulgated as well as on certain pollutants such as sulfate compounds which are currently unregulated. Such studies are aimed at improving information on these pollutants to allow the refinement of the standards themselves and to provide scientific health bases for promulgation of new standards should this become necessary;

- Completion of an 18-city survey of carboxyhemoglobin levels in humans as part of a continuing evaluation of the primary ambient air quality standard for carbon monoxide. It indicated that carboxyhemoglobin may be an indicator of ambient CO levels but that it is also a function of smoking habits;

- Completion of annual reviews of available research results on nitrogen oxides and particulates as part of a continuing evaluation of the primary ambient air quality standards for nitrogen dioxide, and total suspended particulates. The data suggest that short-term peak exposures to nitrogen oxide may be important in health considerations for this class of compounds, and that health information is needed on the effects of particulate size distribution and chemical/physical characteristics;

- Drafting of comprehensive scientific and technical assessment reports on specific pollutants including cadmium, lead from stationary sources, and chromium--these documents provide compilations of what is known about the subject pollutant and indicate areas requiring additional data for the development of effects criteria;

Initiated a survey of existing repositories of tissue samples with a view toward the establishment of a coordinated, nationwide tissue sample banking system--information obtained through tissue analysis would include data on exposure trends in the population with respect to trace metals, for example;

Compiled a series of animal studies on nitrogen oxides and ozone which showed exposure to be associated with lowered resistance to infection;

Established a comprehensive User's Network for the Applied Modeling of Air Pollution (UNAMP) providing user communities with mathematical models for projections of air quality from point and area pollution sources;

Made a preliminary determination on the urban, regional and multiregional distribution of atmospheric sulfate levels in the United States. Results suggest widespead distribution of sulfate at levels which may be near expected thresholds for health effects;

Conducted a preliminary field investigation on the extent of long range transport of oxidant and its precursors from urban to rural locations. Results suggest that oxidant from one urban area may achieve significant levels in regions 100 km distant;

Preliminary finding of field studies conducted in the St. Louis area indicate that (a) the conversion rates of sulfur dioxide to sulfate in coal-fired power plant plumes are usually low, with values typically on the order of one to two percent per hour, while oil-fired plants exhibit much higher conversion rates; and (b) negative uptake constitutes one of the major removal mechanisms of sulfur dioxide emitted from low level sources (e.g., urban plumes), and

Two reports on the expected impacts of auto-catalyst generated sulfuric acid aerosols have been issued, which indicate that significant adverse health effects could occur after operation of two model years of catalyst-equipped cars in California and four model years nationwide.

1976 Plan

The objectives for air processes and effects research in 1976 will include continued efforts to obtain and strenghten the health effects basis for air quality criteria for carbon monoxide, nitrogen oxides, oxidants, hydrocarbons, sulfur dioxide, and total suspended particulates; to characterize the health effects on important noncriteria pollutants with major emphasis on particulate sulfates, nitrates, and trace metals; and to accelerate work on the potential health impact of catalytic muffler related emissions.

Investigation of possible interactive health effects of air pollutants, such as combination of ozone and nitrogen oxides, as well as of the mechanisms of atmospheric pollutant processes including the conversion of NO_x to nitrates and SO_2 to sulfates, and the possible extent of stratospheric O_3 (ozone) destruction by halocarbons, e.g., Freons, will be accomplished.

Monitoring efforts will be aimed at development of measurement methods for ammonia and odor for mobile sources, an advance open-path prototype monitor for gaseous pollutants, an x-ray diffraction method for airborne asbestos, techniques for testing of multipollutant least cost strategies, and a miniaturized SO_2 detection instrument.

We also plan to validate photochemical models used to provide estimates of atmospheric oxidant concentrations; provide information on the intensity and extent of oxidant transport from urban areas to rural locations; demonstrate a fast nitrate determination method; evaluate and compare the desirability of utilizing emission standards versus ambient air standards; and provide an updated report on benefits of air pollution control.

Purpose of Increase

An increase of 15 positions is requested to support on-going research on the health effects of emission products of catalytic converter equipped vehicles. Early findings suggesting possible adverse health impacts of these devices, now coming into wide use, underscore the need to accelerate this research.

Air

Research and Development

Control Technology

	1975	1976	Change
Control technology...	$17,532,500	$9,536,600	-$7,995,900

The air control technology research program was formerly divided into two areas -- stationary source control technology and mobile source control technology. The base mobile source control technology program has now been reassigned to the Energy Research and Development Administration (ERDA), with a small residual effort remaining to provide standards and regulations support for the abatement and control mobile source program. Discussion of this effort will be found in the air abatement and control justification. These resources will be transferred to the abatement and control account during FY 1976.

Stationary source control technology

The stationary source control technology program categorizes pollutants into four types, nitrogen oxides, sulfur oxides, particulates, and hazardous air pollutants.

Nitrogen Oxides (NO_x) are produced in about equal quantities from vehicles and stationary sources. EPA's future control strategy may place primary emphasis on control of NO_x from stationary sources, and allow increased emission from mobile sources. This strategy would require the development and demonstration of improved NO_x control technology. Key to the successful development and application of stationary source NO_x control technology is an understanding of the application of combustion theory to principal source types. The theory has been largely developed. The next step is its application through field tests and demonstrations. EPA has an R&D program that will apply and demonstrate NO_x control theory to major sources. Since the larger demonstration projects on power generation will be done as part of the energy R&D program, the on-going base program will concentrate on smaller systems permitting a major reduction in resource requirements for this program.

Historically, the sulfur oxides (SO_X) control technology program has been oriented toward the control of utility power stations which have long been recognized as the major source of SO_X emissions in the United States. This emphasis upon control of utility emissions has resulted in the development and demonstration of several viable processes for control of this source. Recent studies, however, have established that in most U.S. industrial cities the most important contributors to ambient concentrations of SO_X are industrial processes, industrial scale boilers, and area sources. The large complex techniques developed for the electric utility plant are not applicable to those sources. Also, recent studies have implicated sulfuric acid mist and particulate sulfates as a serious causative factor in respiratory distress and increased morbidity. In view of these factors, emphasis on control of these non-utility sources may be increased. Decreased program emphasis on utility sources of SO_X will permit a substantial decrease in resources required for this program.

The principal sources of particulate pollution are industry, agriculture, and transportation, with the formation of particulates in the atmosphere from gaseous pollutants also providing a substantial contribution. Fine particulates (less than three microns in diameter) remain airborne for long periods of time and accumulate in the atmosphere. They have maximum effect on atmospheric visibility and are inhaled deeply into the lungs where they may have significant health effects. These fine particulates frequently have catalytic effects, with potential to thus contribute to atmospheric reactions causing smog. Control technology for these fine particulates is not adequate and the air pollution control technology program will emphasize improving the control of these fine particulates. Coordination of this program with energy programs permits a substantial reduction in this program.

Most air pollutants defined as "hazardous", or considered to be potentially hazardous are emitted from industrial sources, presenting a difficult control problem since these sources are diverse. Also definitive information reqarding the health effects and applicable control technology for the potentially hazardous pollutants is limited. There is not enough quantitative data available for setting standards and consequently the required level of control is unknown. Sources of these pollutants have not been fully identified. This program focuses on the identification and characterization of potentially hazardous pollutants and is supported by the above particulate and gaseous programs to develop control technology.

A substantial investment of resources has been made in the energy related research program. Since a significant fraction of air pollution comes from energy production and consuming processes it is reasonable to expect considerable overlap. The stationary sources control program, and the energy-related research program have therefore been carefully structured to complement each other.

1975 Program

The 1975 nitrogen oxide program is focused on the development and application of fundamental combustion contol technology. This work has advanced to the point where prototypes are needed to demonstrate the most promising systems on full-scale NO_x sources. The present program is directed primarily toward control of combustion sources of NO_x by modifications of combustion equipment designs and processes.

In response to the primary need for control of smaller, non-utility sources of SO_2 the 1975 program was aimed at developing small, simple low cost control systems. Demonstrations of several large scale utility source SO_2 processes, initiated in prior years, are being completed.

The stationary source particulate control program has been focused on fine particulate contol. Measurement and control methods are being emphasized.

A program to identify, characterize and prioritize industrial sources of hazardous pollutants is being pursued and control methods for known hazardous pollutants are being developed.

1975 Accomplishments

- A hazardous materials source assessment program was initiated to provide information for future standards and hazardous pollutant control;

- Demonstrated NO_x control using molecular sieve sorption systems;

-- Achieved substantial progress in developing low emission burners and providing understanding of NO_x formation in flames;

- Assessed mobile source pollution control technology

for use in stationary internal combustion engines and gas turbines;

- Completed demonstration of the Mag-Ox scrubbing process, proving the availability of this process for control of SO_2 in power plant flue gas;

- Completed long-term testing of the lime and limestone scrubbing processes, providing sound design data for the engineering and application of cheaper more effective SO_x control systems for power plant flue gas;

- Completed demonstration test program on a high efficiency (99.6 percent) electrostatic precipitator establishing the capability of this device as a total (including fine) particulate dust collector, and

- Constructed and placed in operation a mobile test unit. This unit will provide basic dust collector design information and will provide data for setting and enforcing particulate standards.

1976 Plan

The 1976 program for NO_x control technology development includes the demonstration of catalytic and surface combustion for the control of area sources such as gas-fired space heaters, and small industrial combustion sources. Design concepts for low polluting combustion equipment ranging in size from space heaters to large utility boilers will be developed. Prototype and demonstration projects to provide the application technology required for a wide variety of combustion sources are also planned. These projects will include retrofit design concepts. The program to control NO_x with other than combustion control techniques will be expanded to develope control procedures being identified in the existing 1975 program.

The most promising options identified in the 1975 program for the control of SO_2 from small stationary sources will be given principal support in 1976. A substantial effort will be initiated to determine the lower limits for adaptation of the present large-scale flue gas desulfurization technology to small area sources.

The particulate program will continue existing efforts in control technology. Emphasis will be placed on the control

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of sources of fine particulates identified in the hazardous pollutant control technology program. This will include an accelerated program of source assessment of potentially hazardous pollutants in order to define problems and develop control technology more rapidly, development of short-term screening tests for identifying pollutant-related health effects, and establishment of a definitive and dependable list of potentially harmful pollutants. Development of control techniques for open source pollutants (i.e., agricultural burning, fugitive dust from road, etc.) as well as measurement techniques for fugitive dust emission, will be continued.

Purpose of Decrease

A substantial investment of resources has been made in the energy-related research program. Since a significant fraction of air pollution comes from energy production and consuming processes, it is reasonable to expect overlap between the base and energy programs. The stationary sources control program and the energy related research program have been therefore carefully structured to complement each other. For example, large NO_x control demonstration projects on electric power generation plants will be done as part of the energy R&D program. The base program will continue to concentrate on smaller and non-energy related sources including industrial processes and area sources. Similarly, energy resources will supplement base program particulate control technology developments. As a result a reduction of $8 million in base program resources is possible.

Mr. BOLAND. Mr. Strelow, the Assistant Administrator for Air and Waste Management, this is your area, is it not?

Mr. STRELOW. Which portion?

Mr. BOLAND. Is it your area?

Mr. STRELOW. Air, solid waste, noise, radiation, yes, sir.

Mr. BOLAND. I have read your statement. On page 10 of your statement you mention resource recovery. What are you doing in the area of resource recovery?

For instance, on page 11 you say, "Many communities are hampered in implementing research recovery by the lack of inhouse expertise to conduct feasibility studies or to procure resource recovery systems."

I presume practically every community is hampered in implementing resource recovery. It probably has little or no expertise in this area.

How much money is provided in this budget for this kind of activity?

Mr. TRAIN. Roger, can you pick up with that?

Mr. STRELOW. Yes.

Mr. Chairman, we are planning to spend about $2.8 million. We have several activities which focus on helping communities with planning and implementing resource recovery systems. I suppose the most important are the projects where we have demonstrated the feasibility or are in the process of demonstrating the feasibility of various energy recovery and materials recovery systems such as those in St. Louis, Baltimore, and a number of other areas.

We also have as part of our basic technical assistance operation, staff within the Office of Solid Waste Management who are available upon request to consult with communities. They provide communities with information on the technologies available and the analyses which are required to select the resource recovery system. In addition to the direct technical assistance, we provide assistance through various written materials which document EPA's experiences with its demonstrations as well as other communities' efforts in resource recovery.

The 1975 budget provides, I believe, some $500,000 for front-end planning assistance to foster resource recovery implementation.

Mr. BOLAND. Are you talking about the six communities that you mention in the justifications?

Mr. STRELOW. No; these are the other communities.

Mr. BOLAND. How many inquiries have you had from various communities in this particular area in resource recovery?

Mr. STRELOW. I am not sure I could quote you a precise figure offhand. There have been a large number of communities that have expressed an interest. They vary all the way from communities simply having heard about resource recovery to those who have initiated construction of resource recovery systems. In a number of cases communities are doing a good deal on their own, even without EPA assistance.

Mr. BOLAND. With respect to resource recovery systems, how expensive are they? I know that it would vary, of course, with the size of the community, but what would be the cost of a resource recovery system for St. Louis, for instance? Has that been projected?

Mr. STRELOW. We've published information on the economics of the various resource recovery technologies that we have demonstrated in the last Report to Congress on Resource Recovery and Source Reduction. In that report it indicated that the total net costs for the St. Louis System were $0.85 per input ton.

Mr. BOLAND. There are a number of private organizations in on this, are there not?

Mr. STRELOW. In St. Louis; yes.

Mr. BOLAND. Who pays for the facility in a particular community? Will the EPA pay for this?

Mr. STRELOW. No. EPA has no statutory authority for capital funding for a particular project. We have only demonstration grant authority. In St. Louis, Baltimore and for other areas we have provided funding for a portion of the cost of the facility to demonstrate a new technology.

Mr. BOLAND. You do have authority to assist the communities in planning though.

Mr. STRELOW. Yes; we can and do assist the communities in their planning of resource recovery systems.

NOISE EMISSION STANDARDS

Mr. BOLAND. What about noise control, particularly with reference to airports—Mrs. Burke has propounded a few questions on this area. On page 13 you talk about the EPA's program to implement the Noise Control Act, and that it focuses on development of regulations and related activities that would lead to a reduction of the population noise exposure levels that may be deleterious to health and welfare.

You say. "The primary method for achieving these goals is through the establishment of noise emission standards for new products." You also indicate that, "Proposed rules have been published, and hearings have been held, for the first set of products, including medium- and heavy-duty trucks and portable air compressors."

What else do you have in there besides those products?

Mr. STRELOW. These are the first two on which we have actually proposed specific regulations. We are now in the process of finalizing those.

Mr. BOLAND. How are you reducing or abating noise from heavy-duty trucks? What sort of a system are you using for the portable air compressors?

Mr. STRELOW. I believe that for both the trucks and the air compressors it is basically a muffling type of requirement. There are various degrees of effectiveness in different types of mufflers, there are shieldings that can be used in the engine compartments and the fan blades.

As you may know, under the Noise Act we are required very explicitly to set standards based on available technology that is available at reasonable cost.

Mr. YOUNG. Would the chairman yield?

Mr. BOLAND. Yes.

COST OF MUFFLING DEVICES

Mr. YOUNG. Could you give us an average cost on muffling devices for a large truck?

Mr. STRELOW. For example, in our regulations on in-use motor carriers which are actually on the books right now, we estimated that the average cost of those trucks which require upgrading to meet our requirements, and a relatively small percentage would actually need additional hardware, was in the vicinity of $135.

As the requirements get more and more stringent, as they would for the new products, these costs can go up quite substantially to much higher figures, thousands of dollars per vehicle. In this area, our new truck proposal is a three phase set of standards. There would be one standard set for the 1977 to 1980 models, and then a more stringent requirement has been proposed for 1981, 1982, and 1983 models with a still more restrictive standard for 1983 models and later.

The most stringent standard is based on a demonstration program carried out by the Department of Transportation to show how quiet a truck could be made with existing technology. We have had a lot of comments on that 1983 standard, and it is not a settled proposition at this point.

Mr. YOUNG. What kind of a vehicle would take the one you referred to that would cost thousands of dollars?

Mr. STRELOW. It would be your really heavy-duty tractor trailer type of truck.

Mr. YOUNG. Actually it was a tractor trailer type I was thinking about when I asked what the cost would be for a truck.

Mr. STRELOW. Under the existing regulations even the number of those large and relatively noisy trucks, this $135 vicinity would be proper, I think. The regulations for newly manufactured trucks, not for retrofits, but for the new trucks in the future have requirements that would bring the cost up to the higher figures.

Mr. YOUNG. What I am trying to get in my mind is why one would cost $135 and then another might cost thousands of dollars.

Mr. STRELOW. I wasn't clear on that point. The $135 is for a standard that is now in effect that applies to existing vehicles as well as new ones. The motor carrier noise standard is simply not as stringent as what we are proposing for future newly manufactured trucks. The motor carrier standard is aimed at relatively simple corrections to existing vehicles which are very noisy, usually because of bad or improper mufflers and certain types of tires. Only a fraction of the trucks on the road will be effected. We feel that the existing technology can be built into the new trucks but the cost of retrofitting all or most existing trucks would be prohibitive. In many cases, such retrofitting would not be possible.

Mr. YOUNG. It isn't this new vehicle that will have the cost of several thousand dollars?

Mr. STRELOW. Yes; correction of the existing vehicles would not be that costly.

Mr. YOUNG. And what have we done costwise to a truck like that for pollution, not the noise pollution, but the pollution from exhaust fumes?

Mr. STRELOW. I would have to check on the exact dollar figures but our existing requirements for trucks are really very, very minimal.

Mr. QUARLES. I would like to suggest that we submit additional information for the record at this point. I think it would be unfortunate if the impression is left as to the level of cost for requirements that have been established to date by the agency. It might be helpful to be able to clarify the anticipated costs for the standards that have been established, and some of the cost related to standards that have been proposed and are under consideration, but I don't think you should draw the impression—correct me if I am wrong on this—that we have established regulations that will impose an additional cost of several thousand dollars on new trucks in the future.

Mr. YOUNG. I would appreciate that specific information, because if we raise the cost of a new truck several thousand dollars, the cost of whatever that truck is transporting is going to be increased.

Mr. QUARLES. Absolutely.

Mr. YOUNG. Plus the handling charge on the increases, so I would appreciate that specific information.

Thank you very much.

[The additional information follows:]

TOTAL COSTS OF NOISE AND EMISSIONS CONTROL FOR HEAVY DUTY VEHICLES

The controls required of in-use trucks are related to noise controls; no Federal emission controls are applicable to in-use trucks. The noise controls are estimated to cost, on the average, $135 per truck.

Air pollutant emission controls have been applicable to new truck engines since the 1970 model years. Costs per truck for gasoline powered trucks related to these controls have been estimated at $21.50 for model years 1970 through 1973, and $45.50 for model year 1974 through 1979. An additional maintenance cost of $16 per year is related to these standards. Costs for diesel-powered trucks are estimated to be negligible. Standards applicable to later model year trucks are under development at this time; no cost estimates are available.

Noise controls are estimated to have the following cost impact on heavy duty trucks:

Model years	Gasoline powered	Diesel powered
1977–80	None	$105
1981–82	$125	265
1983 and later	300	1,120

DECIBEL LEVELS

Mr. TALCOTT. Mr. Chairman, may I just ask, do you have a decibel level depending upon the different areas? For instance, is the decibel level permitted to be higher on the highways where there is a lot of noise and people know there is going to be a lot of noise when they go there as compared to wilderness areas? Motorbikes and this sort of thing can cause a racket that can be heard miles and miles away. It is an offensive noise there and it might not be an offensive noise someplace else?

Mr. TRAIN. For the purpose of guidelines to communities, yes, but in terms of actual regulation of specific products, a truck that is manufactured in Detroit to be sold, shipped, and used across the country,

it is a uniform technologically based standard, not depending upon the area where it would be used.

Mr. TALCOTT. Do you have jurisdiction over the noise caused by motorbikes in wilderness areas?

Mr. STRELOW. No, however, potentially that is one of the new products on which we are considering setting standards. We only regulate new products. In determining a feasible level for regulation, we would consider what is the most common use of that product, what would the noise impact be.

Mr. TALCOTT. So you don't take into consideration where noise is more offensive in one place than another.

Mr. STRELOW. We do that in selecting the products that we regulate. We try to deal on a priority basis with those types of noise emitters that are the most offensive, causing the most health and welfare effects. That is why, for example, we focused initially on air compressors and trucks. The transportation and construction activities tend to be major noise contributors.

POWER LAWNMOWER DEVICE

Mr. BOLAND. What about power lawnmowers?

Mr. STRELOW. This is another product that we have under active consideration. In this case it gets a little more complicated because the Consumer Product Safety Commission has also been investigating this area for possible regulations, and we have deferred going too far down the road until we see what they may be contemplating doing so that we can coordinate with them.

Mr. YOUNG. Will the chairman yield one more time?

Mr. BOLAND. Yes.

Mr. YOUNG. Might I ask about an estimated cost to a lawnmower to apply whatever device you require?

Do you have figures on that yet?

Mr. STRELOW. I don't believe we are far enough along yet to say what the cost would be. The cost would depend on the emission standard.

Mr. YOUNG. What is the range that you are working with now?

Mr. STRELOW. I would say in most of these cases we are not talking about added costs that would exceed more than 5, perhaps 10 percent of the cost of the product, and in many cases it is substantially lower than that, but I would emphasize in this particular statutory authority we have very explicit requirements to consider cost, to consider the reasonableness of that cost, and we certainly do so.

AIR QUALITY

Mr. BOLAND. With respect to abatement and control activities of air, there is a reduction there. The justification reflects a reduction of $10,082,000 in fiscal year 1976. The reductions occur, as I understand it, in vehicle in-use testing, academic training and other support. That reduction is partly offset by a carryover of $3.7 million which was as I understand it a congressional add-on to the 1975 budget; is that true?

Mr. STRELOW. That is correct.

Mr. BOLAND. The justification does indicate that air quality has greatly improved throughout the Nation due to reductions of auto emissions in the large urban areas, and a switch to low sulfur fuels by powerplants and large industrial users. However, the latter is likely to be considerably minimized in the future as a result of the coal conversion requirements and the relaxation of compliance deadlines enunciated in the 1975 Energy Supply and Environmental Coordination Act, an amendment of the Clean Air Act of 1970.

Under the ambient air quality standards promulgated on April 30, 1971 for air pollutants, most of these are to be met by July 1975, and the balance by 1977?

Mr. STRELOW. That is correct.

Mr. BOLAND. Are States experiencing any problems in meeting these requirements?

Mr. STRELOW. Yes, they are. In a number of cases there simply is not presently available a sufficient supply of low sulfur content fuel to enable full compliance with the existing requirements. One has to look at this in two parts. One aspect is whether or not they can comply with the State implementation plan emission limit. The second question is whether, apart from that, they will be in compliance with the national ambient air quality standards.

In a number of cases States have established emission limits which are somewhat more stringent than would be absolutely needed to meet the national ambient air quality standards.

Part of our efforts to deal with the situation you just described has been to identify these areas where a State could potentially allow a somewhat higher sulfur content in fuels. In most cases it simply means allowing them to continue using the fuel that they are now burning, if this would be consistent with the air quality standards.

Mr. BOLAND. But the State itself makes a judgment as to whether or not it will permit this kind of a use.

Mr. STRELOW. That is correct.

INTERMITTENT CONTROLS

Mr. BOLAND. We have that problem incidentally in Massachusetts, where the standards are stricter than they are in New York and in Connecticut. The Department of Public Health has not approved switching from clean oil to a high sulfur fuel.

What is the name of that switching system? You are familiar with it, I am sure.

Mr. STRELOW. Intermittent control.

Mr. BOLAND. Where does the problem lie there? Does it actually lie with the State?

Mr. STRELOW. The question of the use of intermittent controls?

Mr. BOLAND. Yes.

Mr. STRELOW. No, there is a Federal policy issue there. The Clean Air Act has been interpreted by the Agency and upheld by the fifth circuit Court decision that basically permanent or constant controls are the preferred strategy, that intermittent types of controls would only be allowable under the act if constant controls were not available for some reason.

Mr. BOLAND. Why isn't an intermittent system a good system? Why, if the air can take it at a particular moment or at a particular time of the day, wouldn't that be a good system? It certainly is cheaper in the long run for the utilities, for the users, and for the consumers.

Mr. STRELOW. There are really two reasons. One is that in a fairly large number of cases an intermittent type of system is not, in the judgment of our enforcement people, a reliable and enforceable system. It depends on being able to make predictions about changes in the weather, changes in other people's emissions that are impacting in the same vicinity in such a way that where you have multiple sources impacting in a particular part of the air, it is very difficult to make sure that the fuel switching or the load shifting, load reduction, can actually be implemented in time to prevent air quality standard violations. Even if the system is very sophisticated, and even if you assume that the people running it have every good faith and intention to make it run, it is difficult.

There are other instances, and the recent policy agreement that we developed within the Energy Resources Council focuses on the relatively isolated plants, where you don't have a number of these reliability problems for making the system work, and it is in that area that, in order principally to ease some of the cost impact on the total utility industry, that we have proposed a policy of allowing these relatively isolated facilities to use intermittent controls for a limited period of time. Our estimates indicated somewhere between 20 and 100 such plants would be able to use intermittent controls for a limited period of time.

The answer to why not let them use it indefinitely, I think, gets back principally to the phenomena of sulfates emissions. This problem exists even though you may be meeting the current ambient air quality standards for sulfur dioxide. Sulfates, which are a byproduct of sulfur dioxide emissions, are not directly emitted but are formed in the atmosphere often at quite elevated levels. Our health people feel these levels are of considerable concern even when you are meeting the ambient sulfur dioxide standards.

There has been an attempt to try, in a reasonable way, to minimize sulfur emissions. Simply meeting the current ambient standards and maximizing sulfur emissions has been of concern to our health people. It is a frustrating situation, because we don't have fully adequate data yet to actually set an ambient air quality standard for sulfates. The limitations on the use of intermittent controls, which controls do increase the sulfur emissions considerably compared to permanent controls, have been viewed as a step to at least attempt to deal with the sulfates issue.

AMBIENT AIR QUALITY STANDARDS

Mr. BOLAND. Who establishes the ambient air quality standards?

Mr. STRELOW. The Environmental Protection Agency has promulgated those.

Mr. BOLAND. How do you arrive at those particular standards?

Mr. STRELOW. They are based on a combination of health studies, clinical studies, and epidemiological studies, which identify the levels

of exposure at which it can be determined that there are adverse health effects.

These effects are principally in the category of aggravation of preexisting symptoms, such as asthma or bronchitis, and then the statute quite specifically requires that we establish standards to protect sensitive or susceptible elements of the population, not just the normal healthy adult but children, elderly people, those with these preexisting respiratory and other conditions, heart conditions in some cases, and to establish the standard and level that will protect those elements of the population with an adequate margin of safety, as the statute provides.

The process for setting that standard includes a very extensive scientific review outside of the agency. A committee is established in each case of academic and other scientists to review our determinations.

Mr. BOLAND. EPA has claimed that air quality has greatly improved throughout the Nation due to the reduction of auto emissions in the large urban areas and a switch to low-sulfur fuels by powerplants and large industrial users. Obviously, a substantial part of this progress is due to the use of cleaner burning fuels, and you have indicated this in your justifications and in the statement.

What will be the impact of the 1975 Coordinating Act which relaxes compliance deadlines and permits a continued burning of coal in some areas?

Mr. STRELOW. I think the most important point with respect to the 1974 amendments are that they still require that the ambient standards for public health protection, the so-called primary air quality standards, still be met. The relaxation, potential relaxation, usually relates to those areas where an existing State implementation plan emission limit is more stringent than needed. It allows EPA, in the circumstances of coal conversions that are mandated by the Federal Energy Administration, to, in effect, override the State implementation plan to some degree, and allow a less stringent emission limit, which would be consistent with the ambient standards. In many cases it will allow the continued use of higher sulfur fuels, but not in violation of the health standards.

Mr. TRAIN. May I interject there, Mr. Chairman?

There is no question that if there were any substantial numbers of coal conversions in the near future, which would presuppose coal conversions without scrubber technology being applied at the time of the conversion, there undoubtedly would be a reversal of that trend that we have referred to, and you would see rising levels of sulfur oxide, ambient levels of sulfur oxides, in the regions particularly affected.

I think your point is well made. There is just no question this would occur.

One other point I would like to make with regard to the intermittent control issue which you raised and which Mr. Strelow has already addressed is that it is important to note that we have, I think, tried to be flexible in the way we have approached this issue. We have urged the Congress to provide legislative flexibility which will permit us to extend until 1985 the use of intermittent control systems in rural isolated situations, in areas which are not subject to the problem of difficulty in enforcement and monitoring.

We are recognizing the desirability of not forcing the introduction of scrubber technology in areas of low priority, and have recommended stretching this out until at least 1985.

Mr. TALCOTT. Mr. Chairman?

Mr. BOLAND. Yes.

SUSCEPTIBLE POPULATIONS

Mr. TALCOTT. May I ask who gives you the authority to promulgate regulations which protect a few sensitive persons, as you suggested I think, at the extra expense of everybody else in the country?

Mr. TRAIN. This is the Clean Air Act and its legislative history makes this quite plain.

Mr. TALCOTT. It was only to protect certain normal levels of sensitivity, not protecting an asthmatic.

Mr. TRAIN. It is quite plain and obviously this issue has been discussed many times, because it does increase the stringency of your standards.

Mr. TALCOTT. And the cost?

Mr. TRAIN. Substantially, and their cost.

Mr. TALCOTT. The cost and expense to you.

Mr. TRAIN. No question, but the clear intent of Congress is that the standards be set to protect susceptible populations. The fact is that when you start adding up "susceptible populations" with regard to any one of these standards, you are really talking about a rather substantial number of people. The percentage of this country who are very young, very old, or who have respiratory problems of one kind or another may be well more than a majority.

While these are not the completely healthy average adult, at the same time the susceptible population does represent a very large proportion of the populace.

Mr. TALCOTT. I think the concern expressed to me, and the reason I asked that question, is that you can run the costs of your administration, and those of everybody else who has to comply, up very high just to benefit a very few persons. The question is just how much authority do you have to do that?

Mr. TRAIN. If it really were very few, I think probably this wouldn't be a matter of great concern, but as I say, I think the susceptible population definition covers a very broad proportion of the population, and these are the people, because of their susceptibility to bronchial attack, asthma, aggravation and other things of this sort, who, if the ambient air quality level of say sulfur goes up, are going to be incurring hospital costs, medical costs, which do impinge on society as a whole, and not just on them as individuals as a rule.

Mr. TALCOTT. That is a good argument.

Mr. TRAIN. It is hard to generalize about this.

AIR CONTROL AGENCY GRANTS

Mr. BOLAND. On page A–9 it says that over 60 percent of your funds in this area are channeled to State and local agencies through control agency grants; EPA's technical assistance, monitoring, and training programs directly support state and local efforts. What is your request for grant support for air programs?

Mr. STRELOW. I believe it is in the vicinity of $47 million. With the carryover from fiscal 1975 at $3.75 million, we would retain the $51 million level for State air grants.

Mr. BOLAND. Do you consider this level of grant support adequate?

Mr. STRELOW. No.

Mr. BOLAND. What would you consider adequate?

Mr. STRELOW. We have made estimates, and I would like to be fairly specific on how we arrive at these estimates.

We base our estimates on surveys with the state agencies to determine what level of funding, what level of personnel they would have to have to adequately carry out the functions under the act.

Mr. BOLAND. I would hate to hear the figure.

Mr. STRELOW. Their estimates are, I believe, in the vicinity of $80 to $90 million as opposed to the $50 million.

Mr. BOLAND. How much are the States and communities providing for EPA programs, in addition to the Federal grants? Do you have any idea what the states and local communities actually spend?

Mr. STRELOW. Something more than 50 percent.

Mr. ALM. Sixty percent.

Mr. YOUNG. Would the chairman yield?

Mr. BOLAND. Yes.

STRICTER STATE REQUIREMENTS

Mr. YOUNG. How many States have state requirements that are stricter than the EPA requirements?

Mr. STRELOW. I would say the majority of States have at least some requirements that are more stringent than ours. It varies on different pollutants. Some of them have tougher air quality standards. Some of them simply have tougher emission standards, but I would say undoubtedly a majority of States have at least some requirements that are more stringent than would be minimally mandated by Federal law.

Mr. YOUNG. Do you have any indication of what the cost is to the polluter? I use that for lack of a better term; what the cost is for the EPA requirements as opposed to a more stringent State requirement?

I ask the question because we hear from an awful lot of people that the State requirements really up the cost of electricity by 13 percent; for example, over and above what the EPA requirements would require.

Mr. STRELOW. I suspect that could be largely true because of this reason. As you get up to levels of control, high levels of control, 80–90 percent removal of pollutants, for example, the cost of taking those last few percentage points out is often much greater, at least the marginal cost is much greater, than having gotten quite a bit of that initial chunk out, so that if EPA has a requirement that let's just say hypothetically—is 90 percent removal of a pollutant and the State requirement says 95 percent, that could be quite disproportionate.

Mr. YOUNG. Of course I recognize and strongly defend the right of States to set their own standards, but I wonder if there is any reason for the states to go to a 95-percent requirement if the EPA is a 90 percent requirement.

Do you have conflicts with the States about the differences?

Mr. STRELOW. No; no conflicts in terms of their being able to have more stringent requirements. I think the basic reasoning for that, and the reason I am sure that the Congress put in a very explicit provision saying that EPA could not preempt the States from more stringent requirements, is that the basic authority for protecting public health has always resided at the local and State levels. In many ways, the entrance of the Federal Government into this area is relatively new. I think there was the strong conviction that the Federal Government ought to require minimum protection nationwide, but that the states and local communities would still have the option to choose a degree of health protection more stringent if they so desired.

Mr. YOUNG. I thank the chairman.

MASSACHUSETTS AIR QUALITY CONTROL

Mr. BOLAND. With respect to the level of grant support to the States, Massachusetts indicates that it has increased its appropriations for air quality control in the last few years. Do you have any idea on what the State of Massachusetts is spending in air quality control?

Mr. STRELOW. I could provide that. I don't happen to have that figure.

[The information follows:]

In fiscal year 1974, the State of Massachusetts provided $780,600 for air pollution control activities. Local governments provided an additional $50,700. These funds, together with Federal grants of $1,131,000, provided total funding of $1,962,300. For fiscal year 1975, only preliminary amounts are available; as of March 31, 1975, the State had provided $596,700 and local agencies an additional $61,500. These funds were matched by $994,400 in Federal funds, for a total expenditure of $1,652,600 as of March 31, 1975.

AIR CONTROL AGENCY SUPPORT BY STATE

Mr. BOLAND. The commissioner of public health says that the level of Federal support has been the same since 1972. Of course, they would like more money, as would every other State.

What is the situation here?

Mr. STRELOW. As I have indicated, we believe that more funds not only could be used——

Mr. BOLAND. You could use $90 million instantly you say. What about the level of support? Has it been the same since 1972?

Mr. STRELOW. Yes, it has been at the same level.

LEVEL OF GRANT SUPPORT TO AIR POLLUTION CONTROL AGENCIES

Mr. BOLAND. Will you supply for the record the level of grant support to the states for fiscal years 1975, 1974, 1973, and 1972?

[The information follows:]

Total grant amount:

1972	$40,317,581
1973	50,846,769
1974	51,867,704
1975	51,518,000

MOBILE SOURCE

Mr. BOLAND. On page A–10 you are asking for $8,935,400 for abatement and control activities relating to mobile sources. This is $1,354,700 less than the current level.

What was your submission to OMB in this activity?

Mr. STRELOW. Our OMB request was $12,778,500, Mr. Chairman.

Mr. BOLAND. So you have about a $4 million reduction here. How does this reduction change your plans?

Mr. STRELOW. The principal component of that reduction is the in-use compliance testing program, a program which we feel we need to defer and sharpen up a bit. In this program where we take in-use vehicles, make sure they are in a proper state of maintenance or restore them to that state, and then test them to see if they are out of compliance.

This has turned out to be an extremely complicated technical task, and one where our prior experience has led us to believe we probably ought to pass for this year, undertake some refinements on a much smaller scale, so that we can then get back into a testing program that will hold up in court.

Our principal concern here is that if we find a class of vehicles in use that does not meet the standards, even though properly maintained, the law provides us that authority to require the manufacturer to recall those vehicles and fix them at his expense.

Naturally when we attempt to do this the manufacturers are prone to pick any hole in that data that they can.

Mr. BOLAND. Where do we stand on automobile pollution control? We talked about reduction of standards in the general questions. The original statutory standards were 0.4 gram per mile for hydrocarbons, 3.4 grams per mile for carbon monoxides, and 0.4 gram per mile for nitrogen oxide.

I believe legislation passed last year which reduced those requirements, did it not?

Mr. TRAIN. The legislation last year continued for the 1976 model year what we call the 1975 interim Federal standards which had been set by the Administrator, and gave in that same legislation the authority to me to either extend that 1975 set of standards which now are applicable to the 1975 model year cars, additionally 1 further year to the 1977 model year, or to set a new interim standard, or indeed permit the full statutory standard to take effect.

What I did was following the receipt of the applications from various automobile companies around the first of January to hold an extensive public hearing, some 3 weeks beginning in late January. Then after considering the information obtained from those hearings, on the 5th of March I announced a suspension of the statutory standards for the model year 1977. This meant that the hydrocarbon standard of 1.5 and the carbon monoxide standard of 15 grams per mile would remain in effect for that model year. The 2.0 grams per mile nitrogen oxides standard set in the statute for that year would remain in effect and was not subject to my order.

Mr. BOLAND. Are the statutory standards realistic or are they too strict?

Mr. TRAIN. I think they are technologically perfectly feasible. I think the only questions that could arise at this time in terms of technological feasibility on a broad commercial scale is the eventual 0.4 gram per mile nitrogen oxides standard, but insofar as the statutory standards for hydrocarbons and carbon monoxide, they are technologically completely feasible, and indeed California has just requested a waiver so as to impose those in 1977, and thereby depart from the Federal standard which I have announced.

I think that as I read in the paper over the last couple of days, General Motors, in testifying on the west coast at the California Air Resources Board hearing, testified that it considered going to the statutory standards in California in 1977, the statutory standards being perfectly feasible from its standpoint. The other manufacturers radically disagreed.

Mr. BOLAND. The committee will stand in recess until 1:30. We will continue at that time with air abatement and control.

AFTERNOON SESSION

Mr. ROUSH. The committee will be in order.

STATE TECHNICAL SUPPORT

Turning to page A–11 of the justifications, how much is requested for State technical support?

Mr. STRELOW. I will have to check to see if I can get that figure for you quickly.

Mr. ROUSH. Would you supply that for the record then?

Mr. STRELOW. Yes, I certainly will.

[The information follows:]

AMOUNT REQUESTED FOR STATE TECHNICAL SUPPORT ACTIVITIES UNDER THE MOBILE SOURCES SUBACTIVITY

The budget request includes $820,000 and three positions related to mobile sources emission control activities carried out in support of State and local air pollution control activities.

AIR TECHNICAL ASSISTANCE

Mr. ROUSH. Just what do you plan to do with this money?

Mr. STRELOW. In total or for transportation controls in particular?

Mr. ROUSH. In total, and if you want to emphasize that portion of it you may.

Mr. STRELOW. There is a very wide range of activities that come under the heading of technical assistance. This could involve special monitoring assistance in setting up a particular monitoring program or a particular surveillance program, assistance to a State in evaluating alternative control strategies as to which types of sources to emphasize the controls on, where there might be the potential for getting some of the additional controls to meet the ambient air quality

standards, really anything that involves the strictly technical aspects, particularly monitoring-surveillance types of activities I would think would be the principal ones involved.

MOBILE SOURCE ENFORCEMENT

Mr. ROUSH. How does this differ from the assistance for mobile sources under enforcement?

Mr. STRELOW. Mobile source enforcement?

Mr. ROUSH. Yes.

Mr. STRELOW. I am simply not familiar with the enforcement category. I would have to ask Mr. Johnson or Mr. Alm to respond to that.

Mr. JOHNSON. Mr. Chairman, I don't think we have mobile source enforcement broken down.

Mr. QUARLES. Mr. Roush, could I ask whether your question in regard to mobile source enforcement is zeroing in on the funds provided to States for their use, or whether you are asking about the funds used by EPA itself?

Mr. ROUSH. We are referring to page A–38 of the justification, mobile source enforcement, and you are asking for a total of $3,128,500 for that particular item.

Mr. QUARLES. Right.

Mr. ROUSH. Does that all go to the State?

Mr. QUARLES. No. This item is funds for use by EPA, and Mr. Baum I think could explain a little bit of the activities carried out in the air mobile source enforcement program if you would like.

Mr. BAUM. Basically the increase is for additional work by the Agency to make certain that new cars off the assembly line do, in fact, comply with the standards.

Mr. ROUSH. Does that relate to the motor vehicle engine certification?

Mr. BAUM. It is at the next step after the cars are certified. What is certified by our Agency are prototype vehicles. That shows the manufacturer has the capability of building a vehicle which will conform to the standards.

The next step then is to check the vehicles themselves as they are produced, the actual production line vehicle, to make certain that they do or they are in all respects the same as the prototypes and that they do meet the standards.

MOTOR VEHICLE ENGINE CERTIFICATION

Mr. ROUSH. On page A–11 we have listed under State technical support, motor vehicle engine certification.

Is that that step you just described to us?

Mr. STRELOW. No, Mr. Roush, that is a separate category.

Mr. ROUSH. We are a little new at this this year, and some of these questions may sound a little strange to you, but they are not strange to us.

Mr. STRELOW. The motor vehicle engine certification program is totally distinct from State technical support.

Mr. ROUSH. Is there any overlapping then?

Mr. STRELOW. No, the motor vehicle program is really the one area where, in the air pollution field, it is a totally Federal effort. The State of California has a special provision for activities of their own, but this is a direct Federal regulatory program which does not involve the State in certifying or checking new vehicles for compliance.

Mr. QUARLES. I wonder if I could add a further word.

I think that this is rather complex the way it is laid out in the materials submitted as a justification, because the program itself is complex, but we have a separate section under air for abatement and control, and another separate section under air for enforcement.

In the description furnished on pages A–10 and A–11, that is the basic abatement and control program.

On page 11, the section on State technical support covers a part of that program which provides technical support to those States which are required to implement a variety of control measures applicable to motor vehicle emissions. Then the next item is the Federal motor vehicle and engine certification program which is the principal activity of the agency in regulating automobile pollution.

Mr. ROUSH. In order to keep the record straight, Mr. Baum, did you finish what you were going to tell us about this other portion of the justification?

Mr. BAUM. I did not describe the general function of enforcement, but I guess we are really not interested in that at this point.

Mr. ROUSH. Coming back then to motor vehicle and engine certification, what is the cost of that program?

Mr. STRELOW. The certification program is a $2.75 million program with 55 positions.

COST OF MOBILE SOURCE POLLUTION CONTROL

Mr. ROUSH. Has an estimate been made of the total cost to achieve the end objectives for mobile source pollution control, and the cost to date?

Mr. STRELOW. I don't believe we have that in a single place, but it would be easy for us to derive that.

Mr. ROUSH. Would you supply that for the record?

Mr. STRELOW. Yes.

Mr. QUARLES. You are referring here to the Government regulatory activity as distinguished from the cost borne by the industry?

Mr. ROUSH. It should be broken down so we can have a total picture.

Mr. ALM. Mr. Roush, those figures are on page A–10, which has the figure $8.9 million under abatement and control, and then on page A–38 it has the enforcement portion of mobile sources, which is $3.1 million, so those two figures will represent our mobile source efforts.

Mr. TALCOTT. That is the cost to you.

Mr. QUARLES. That is correct.

Mr. ROUSH. We are asking not just for this year. We are asking here for an estimate on the total cost to achieve the end objectives and the cost to date, rather than the figure for this year.

Mr. ALM. Would that include the private sector costs also?

Mr. ROUSH. Yes.

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Mr. ALM. We will provide that for the record.

Mr. ROUSH. Can you do that?

Mr. ALM. Yes.

[The information follows:]

TOTAL COSTS OF MOTOR VEHICLE EMISSIONS CONTROL

Estimates of expenditures related to motor vehicle emissions are available for the period 1967 through 1974 for General Motors, Ford, and Chrysler. These companies spent $2,762,200,000 in this period for motor vehicle emissions controls. During the same period, EPA and its predecessor organizations spent approximately $70 million. Estimates of expenditures incurred by other companies and State and local governments are not available.

It has been estimated that the cost of the Federal light-duty vehicle emissions control will be $51.7 billion for the period 1970 through 1979, with Federal controls for heavy-duty vehicle emissions costing an additional $1.9 billion in the same period. However, projections of future costs are dependent on emissions standards yet to be adopted; therefore, total future program costs are not ascertainable at this time.

IN-USE VEHICLE TESTING PROGRAM

Mr. ROUSH. On page A-12, would you describe the 1975 and 1976 program for in-use vehicles? Apparently some 4,000 vehicles are to be tested.

Mr. STRELOW. The in-use vehicle testing program has two facets, the first of which is simply to test an adequate sample of in-use vehicles in whatever condition they are found, in order to see how they are actually performing in relation to the standards they are supposed to be meeting.

The second facet of it, which I got into this morning just briefly, is an additional element of that program. This element obtains vehicles that have been maintained properly to determine whether or not emission standards are being met and, if they are not meeting standards, whether there are grounds for a manufacturers recall. The budget this year reflects a continuation of the first facet, the testing of in-use vehicles, to make sure we know what their emissions actually are on the average. The efforts related to the manufacturer's recall program are being eliminated.

Mr. ROUSH. What is the cost in 1975 and 1976 for these efforts?

Mr. STRELOW. It is roughly a $3.5 million program in 1975. That would be decreased in 1976 to roughly $1 million.

Mr. BAUCUS. Will the chairman yield?

Mr. ROUSH. Yes.

IN-USE VEHICLES NOT MEETING STANDARDS

Mr. BAUCUS. What percentage don't meet the tests, the percentage of cars?

Mr. STRELOW. Cars in use?

Mr. BAUCUS. Yes.

Mr. STRELOW. A fairly substantial percentage of the total vehicles do not actually meet the standards in use. You also have a fairly substantial percentage that are way below the standards, or that are much better than the standards, so what we tend to find is that the

average vehicle on the road either meets the standard or is slightly above the standard.

Mr. BAUCUS. Do you have a rough approximation of the percentage that do not meet the standards?

Mr. STRELOW. We have that figure. I can provide it for you. I don't want to try my memory. It is a fairly substantial percentage. It could be in the range of 30 or 40 percent, I believe.

[The information follows:]

PERCENTAGE OF IN-USE VEHICLES THAT DO NOT MEET EMISSION STANDARDS

Preliminary results of recent tests of in-use vehicles are available. In Los Angeles, 30 percent of 1974 model year vehicles did not meet emission standards for hydrocarbons, 50 percent for carbon monoxide, and 10 percent for nitrogen oxides. For vehicles operated and tested in Detroit, St. Louis, Houston, and Newark, these figures (also for 1974 model year vehicles) are 42 percent, 37 percent, and 35 percent, respectively. The average vehicle emissions in all cases either were below the standard or exceeded the standard only marginally.

Mr. BAUCUS. What happens to those? What action is taken with respect to those?

Mr. STRELOW. The only action that would be taken for that kind of a vehicle would be under the in-use compliance effort. This testing program we have temporarily deferred for the 1976 fiscal year because of the great technical complexities that we have encountered, very frustrating ones, in trying to make the determination of the cause of not meeting standards. Is it a problem of maintenance or is it a problem that the manufacturer is responsible for?

If it is not a problem of the manufacturer, and many of them aren't, since in-use vehicles' emissions are very sensitive to proper maintenance, then it is a problem of owners maintaining their vehicles. One of our major efforts has been to stimulate local or State inspection and maintenance programs that would require usually an annual checkup of vehicles to see if they are, roughly speaking meeting the standards, and if they are not, to require that maintenance be carried out. It would be basically a tuneup which would make a very substantial difference.

Mr. BAUCUS. If I understand you correctly, at the present time virtually nothing is done with respect to the car.

Mr. QUARLES. Yes. At the present time no type of enforcement action is taken.

Mr. BAUCUS. As I understand it further, by 1977 you hope to be in a better position to determine the cause of the failure, and at the same time do something about it, make certain recommendations?

Mr. STRELOW. We would certainly hope by that time to have straightened out the difficulties that have plagued our program up to now. We have learned from several years hard experience. We would hope and expect to be able to have a program which would be able to answer that question, yes.

IN-USE VEHICLE TESTING

Mr. ROUSH. As a followup to Mr. Baucus' question, how long will these tests continue, and at what level and cost?

Mr. STRELOW. As I mentioned, for the 1976 fiscal year we are proposing roughly a $1 million level to at least do the tests, simply to

get the data so we can tell you what percentage of cars are not meeting the standards, and how far they are over.

If we are able in subsequent years, as we expect to be able, to reinstitute the more sophisticated type of program, I would assume it would be back up in the vicinity of about $3.5 million.

Mr. ROUSH. Really my question went beyond 1976.

What do you contemplate beyond 1976?

Mr. STRELOW. As I say, based on what it cost us this past year, I would have to roughly assume a total of about $3.5 million, $1 million of which is a continuing expenditure.

Mr. ROUSH. Is there to be a testing of 1975 in-use vehicles?

Mr. STRELOW. Yes, but only for essentially data collection purposes, not for the more sophisticated effort needed to actually attribute the problem to a manufacturer and order a recall.

Mr. ROUSH. If that is the case then, how will the effectiveness of the program be tested?

Mr. STRELOW. The effectiveness of the overall emission control program is determined through the testing of in-use vehicles, which indicates emission performance of cars on the road.

Mr. Roush, I believe there is some confusion in the language here for which I apologize. The suggestion, I believe, is given that there will be no testing for in-use emissions.

Mr. ROUSH. That is right.

Page A–12 you stated "However, reduction of resources for 1976 in this program will eliminate testing for 1975 model year vehicles to determine in-use emission."

Mr. STRELOW. I apologize. That is an overstatement. What is being deleted in 1976 is only a part of the in-use compliance testing program.

Mr. ROUSH. That clarifies it.

EMISSION TESTING LABORATORIES

Then also on page A–12, what is contemplated for emission testing laboratories?

Mr. STRELOW. The problem we are addressing has two parts. First, for imported vehicles, the manufacturers who want to sell cars in this country are required to transport a sufficient number of vehicles to our Ann Arbor facility for certification testing.

They feel, and with some good reason, that this is quite a burden on them. In some cases they have to ship many vehicles to the United States for testing. Our primary effort here will be to establish a program which will certify laboratories overseas, so that the importers could take their cars there, have them tested, and we would be able to accept the results as valid.

The business of testing motor vehicles is a very sophisticated and highly technical one. We simply don't feel that we could accept results from just any laboratory. We have to have adequate assurance that the testing procedures used in the laboratory conformed to the criteria set forth for a certified laboratory.

Mr. ROUSH. What would be the terms of the certification of these independent laboratories?

Mr. STRELOW. They would have to have appropriate equipment. There are different kinds of dynamometers, for example, which is the machine used to test a vehicle in place. There would have to be a certain demonstrated level of competence of the personnel running the machinery, adequate assurance that they were in fact following the fairly rigorous procedures that we lay out for our own employees in doing the tests.

Mr. ROUSH. Do I understand that reciprocal certification is unacceptable to EPA?

Mr. STRELOW. Yes.

Mr. ROUSH. Why?

Mr. STRELOW. Because that in itself does not provide the kind of quality assurance that we feel is necessary.

Mr. ROUSH. How do you come to that conclusion?

Mr. STRELOW. I guess simply the nature of a reciprocal program says if you will accept our tests, we will accept your tests, that type of approach. For one thing, the traffic is almost all in this direction, it is my understanding. There are a lot more vehicles imported into the United States than we would be exporting to Europe or to Japan.

Furthermore, particularly in Europe, the standards simply don't approach ours in terms of either stringency or the rigor of whatever test procedures are applied. Reciprocity would also mean accepting these less stringent standards.

Mr. ROUSH. There are times, at least from my observation, that European countries have been ahead of us in some of these areas. I just wondered how you came by the knowledge that a reciprocal agreement would not be acceptable because they are not up to par with their own certifications.

Mr. STRELOW. In the auto emissions standards area, I think it is pretty clear that our efforts have been quite out in front.

Mr. QUARLES. Mr. Roush, I think the basic point here is to try to establish assurance that we are applying the program fairly, and not discriminating against the American producers who are subject to sophisticated and very effective testing in Ann Arbor, and the concern could be that foreign manufacturers, if they were not assuredly subjected to comparable testing, might not in fact be held to the same achievements in emission control.

The point is to try to put it all on an equal footing.

Mr. TALCOTT. Mr. Chairman?

Mr. ROUSH. Yes, Mr. Talcott.

EMISSION CONTROL DEVICES

Mr. TALCOTT. I have two questions on emission control.

During the energy crisis, many drivers or owners of automobiles removed the emission control devices.

Did you have any way or do you intend to enforce compliance?

Mr. QUARLES. The Clean Air Act does not prohibit that if done by an individual owner. It does contain a prohibition only if that removal is made by a dealer.

Mr. TALCOTT. So you can't do anything.

Mr. QUARLES. We have no authority.

Mr. TALCOTT. They are operating within the law when they do that.

Mr. STRELOW. That is right.

Mr. TALCOTT. Do you know what improvement they achieved in gas mileage when they did that?

Mr. STRELOW. Yes. We did a fairly extensive sample testing program because we were obviously concerned that there would be a widespread phenomenon of this sort, and we conducted a fairly intensive survey in Ann Arbor. We had a number of our own employees go out, and without disclosing who they were, take their cars to garages that were advertising fuel economy improvements, have the disconnections made, and we found that in fact, although they were advertising fuel economy improvements, on the average they were getting a worsened fuel economy—in the range of 2, 3, or 4 percent—rather than improvements.

This happened even in one case where we went to a garage that specialized in this and even told them we were EPA employees and said do your best.

Mr. TALCOTT. So you are saying in general that those who took the emission control devices off did not improve their gas mileage.

Mr. STRELOW. The data that we have certainly shows that, yes.

CALIFORNIA EMISSION STANDARDS

Mr. TALCOTT. Then there is another problem. The strict California standards for auto exhaust emissions were really a guide to the rest of the Nation. We are very pleased with them. Some of the people have had their vehicles retrofitted with new devices in anticipation that there was going to be a stretchout of the law. Some of the people who paid for having the devices put on are now unhappy that other people are not required to have the same devices.

Mr. STRELOW. You are referring to the recent law passed in California?

Mr. TALCOTT. Right.

What can we tell those people? How do we console the people who went out and paid the extra money and complied with the law, and then find that people afterwards don't have to do it?

Mr. STRELOW. That is obviously a very difficult proposition. Of course, the initial requirement had been pursuant to a plan developed in part by EPA and was a requirement. The State has now turned that off in midstream, and in fact I was reading just the other day that there is now active consideration within the legislature, and I guess by the Governor, as to this very problem, because a number of people did go ahead and in good faith complied with the law that was then on the books.

Mr. TALCOTT. Isn't this a pretty strong example to you people not to do things by fits and starts, to have good research before you enact some legislation, to make sure that it is going to be valid and permanent?

This stopping, starting, and changing is hard on people.

Mr. STRELOW. I would certainly agree with that. Of course the action that the State of California took was contrary to what EPA had required, and I don't know that the action was attributable to change

in technical knowledge. It is a very complicated situation as I am sure you are well aware in California.

Mr. TALCOTT. There is a lot of political pressure.

Mr. STRELOW. There certainly was a good deal of that. I don't know exactly what EPA could have done differently, except simply not to mandate the program in the first place, even though it seemed to be quite necessary for helping to achieve the air quality standards.

Mr. SHIPLEY. Would the chairman yield?

Mr. ROUSH. Yes.

RISING COSTS OF AUTOMOBILES

Mr. SHIPLEY. I have one or two questions on auto emissions. I would like to give you some figures, and see if you agree or whether you want to challenge these figures.

The Ford Motor Co. has said that in the last 4 months the basic automobile has increased in price about $1,000, and they say this is directly attributable to inflation and the 1975 standards.

I don't know what percentage would be applied to the 1975 standards and to inflation, and I am not sure they know. At any rate, they estimate that the same vehicle will cost about $1,700 more if the 1978 standards are enforced.

Do you challenge those figures or do you have any added information you can give us?

Mr. STRELOW. To my knowledge those figures are quite heavily inflated. One element may be included in there, I have heard presentations by Ford specifically, in which they usually lump the safety and emission control standards together, and say, "Here is what Government regulation is costing you."

In addition to that, even once you have factored out the safety requirements, which tend to be the more costly of the two, at least at this point in time, the figures attributed to emission controls alone I think are simply quite a bit higher than any we have ever been able to justify.

Mr. SHIPLEY. It just seems to me with the economy like it is, and since one out of every six I believe is affected by the auto industry, that maybe we might be moving a little too fast.

Mr. STRELOW. To provide some perspective perhaps, the total cost of emission controls that are now on vehicles I believe ranges between—this depends a lot on vehicle size—total cost ranges between, say, $125 and maybe $250 attributable to emission control hardware equipment. Even going to a much tougher standards level, such as the 1978 standards that are now on the books, would not be adding more than perhaps $50 to $75 at most. In fact I noticed General Motors, the other day in these California hearings that Mr. Train referred to this morning, said they could go and meet the statutory hydrocarbon standards and a carbon monoxide standard that is almost as tough as the statutory requirements for in the vicinity of $5 more than what is now being charged for emission controls.

Mr. SHIPLEY. I am not sure that all of the costs, as I said, are related to emission control. I imagine it is a natural rate of inflation plus safety and everything else, but it strikes me right now, unless the

economy does turn around, and turn around very fast, if we go ahead with the 1978 standards that we are going to put a lot of people out of work and a lot of people out of business. There is no question about it.

Mr. ROUSH. Do you mind if I disagree?

Mr. SHIPLEY. No; you are the chairman. Go ahead.

Mr. ROUSH. It seems to me that we really should pin down these figures, because this hurts me to see something like this. We are concerned. I think we have a tendency to overlook this. We are concerned with the health of the people of this Nation, and I hate to see a motor company or an automobile company put out general information of that sort which intends to incense people against an effort to protect their health. I know I have to look at figures like that with some caution.

Mr. TALCOTT. Mr. Chairman, may I disagree with both of you?

Mr. ROUSH. Sure.

Mr. TALCOTT. It seems to me that we have a lot of responsibilities. We have the responsibility for the health and welfare I guess of our country, and our national defense and also the economic health of our country, which Mr. Shipley I think is talking to. But I really agree with you that the Ford Motor Co., if we are quoting the Ford Motor Co., has the figures. Why don't they print them? I think it would be helpful to us.

Mr. SHIPLEY. I am sure it would be.

Mr. TALCOTT. Instead of saying approximately $1,000 for all of this in one year, they ought to have it down to a quarter of a cent.

Mr. SHIPLEY. This is an estimate, of course, and I am positive they have included in that the rate of inflation, Mr. Talcott. But the point in bringing it out was to get their response, to challenge these figures if they are wrong, and to help clarify the record.

ANALYSIS OF FORD CLAIMS

Mr. STRELOW. Mr. Shipley, it sounds very familar to a presentation that Ford was making several months ago, a car that they called the Federal Pinto. They took a basic Pinto automobile and tried to show you all the costs. We did a very intensive analysis really point by point of that presentation, because it was grossly inflated, for some of the reasons I have mentioned.

I would certainly be glad to provide that to the committee.

Mr. ROUSH. We would like to receive it.

Mr. STRELOW. And project that against the company's own estimates.

[The information follows:]

ANALYSIS OF FORD CLAIMS ON EMISSION CONTROL STANDARDS

Prepared by

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John P. DeKany

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Mobile Source Air Pollution Control

Analysis of Ford Claims On Emission Control Standards

This analysis deals with the following two documents:

1. "Text of remarks by Lee A. Iacocca, President, Ford Motor Company, before members of the Newspaper Advertising Bureau, Inc. at the Americana Hotel, New York, New York, December 9, 1974.

2. Letter from Mr. Misch (Ford) to Mr. Billings, dated December 20, 1974.

The analysis is limited to Ford comments and statements pertaining to the effectiveness, cost, and fuel economy impact of emissions controls.

I. Automobile Emissions

A. Reduction in Emissions

The Ford chart entitled "Index of Reductions in Emissions" (page 14 of pamplet) appears to overstate reductions of HC and NOx emissions.

Ford claims reductions from uncontrolled cars as follows:

	Ford Claims of Emission Reductions		
	HC	CO	NOx
1971 Model Year	73%	62%	Not Stated
1975 Model Year	90%	83%	48%

In terms of the 1975 Federal Test Procedure (1975 FTP), the following are the relevant emission standards and their percent reduction from uncontrolled cars:

	Emission Standards and Associated Reductions from Uncontrolled Cars					
	HC		CO		NOx	
	gm/m	% Red	gm/m	% Red	gm/m	% Red
Uncontrolled Cars	8.7	-	87	-	3.5	-
1970/71 Standards	4.1	53%	34	61%	No Std.	-
1974 Standards	3.0	66%	28	68%	3.1	12%
1975 Standards	1.5	83%	15	83%	3.1	12%
Statutory Standards	.41	95%	3.4	96%	.4	89%

B. Weight - 1975 vs. 1971

The discussion of Pinto weight increases (page 17) due to emission hardware indicates a 42 pound penalty for "emission control hardware." The weight increase is not divided into its component parts. For the equipment listed in the Misch letter for the 1975 Pinto (thermactor, air pump, EGR and evap system) the weight increase of 42 pounds is not unreasonable.

The indirect weight increase was not apportioned between safety and emissions so we cannot say how much of that is attributable to emissions.

However, if indirect weight increase was proportional to direct weight increase, as is reasonable, this would amount to about 20 lbs for emission controls in total, about 17% of the total weight increase, or about 62 lbs, may be reasonably attributed to emission controls.

C. 1975 Fuel Economy

The fuel economy given by Ford for the 1975 Pinto versus the 1971 Pinto is 22.0 vs. 24.2 mpg, a 9 percent loss on Ford's test. This is attributed by Ford to the combination of weight increases, engine size increases and emission control. The change due to each factor is not stated.

However, Ford indicated that the weight went up by 363 pounds over a 71 base of 2135. The displacement went up by about 20 cubic inches, to 140. Our calculations of the change in fuel economy attributable to those changes alone is greater than the 9 percent that Ford quoted.

Changes in Pinto Fuel Economy
1975 Compared to 1971

Source	Cause	Magnitude	Test	Comment
Ford	Weight, engine size and emissions	9% Loss	Ford City suburban	All lumped together
EPA	363 Pound (17%)	8% Loss	EPA	Calculated
EPA	20 CID (16.7%) displacement increase	8% Loss	EPA	Calculated

If the effects due only to the weight and displacement increases are added together the resultant effect (a 16% loss) is more than Ford quoted for the displacement, weight and emission control changes. There are two possible explanations:

a. The two fuel economy test cycles are not the same. Ford's test cycle begins with a hot-start and has fewer stops and starts. The EPA test cycle includes the important cold-start, and better reflects the stop and go driving of city traffic. Weight increases have a larger effect, in terms of fuel consumption, in stop and go driving than in relatively steady-state operation.

b. The difference in the data may be due to the fact that emission controls on the Pinto actually tended to improve fuel economy over the earlier Pinto. This phenomenon has appeared in many smaller cars, in which a primary control technique is to clean out the carburetor and to get the choke off more rapidly.

In any case, we would conclude that for this particular vehicle the fuel economy loss reported by Ford can be wholly attributed to the weight and displacement increases, with little if any loss attributable to emission controls.

D. 1978 Control Systems

The discussion of the Ford 1978 control system is consistent with what Ford has reported to EPA in periodic status reports, i.e. 3-way plus oxidation catalysts, and fuel injection.

The cost of $450 estimated by Ford is itemized by component in the Misch letter of December 20, 1974. The largest cost items are for the catalysts ($235) and fuel injection ($139). Both EPA and NAS estimate the costs of a catalyst system of the type utilized by Ford as $97 for the three-way catalyst and $67 for the oxidation catalyst for a total catalyst system cost of $158. Similarly we would estimate the fuel injection system cost at $124 (including an oxygen sensor for $4).

The other components itemized by Ford are in line with EPA estimates. Thus EPA's estimate for the cost of the system is about 20% lower than Ford's estimate, i.e. $358 vs. $450.

It should also be noted that the Ford 1978 estimate compared to the non-catalyst 1975 Pinto is higher in incremental cost than would be the case for most 1975 cars, which have oxidation catalysts on them already.

E. 1978 Weight Increases

The Ford estimate of 23 pounds due to emission controls appears to be about what we would estimate, considering that the air pump is eliminated.

F. 1978 Fuel Economy

Ford's estimate of a further fuel economy loss of 14 to 18 percent going from 1975 to 1978 is, again, based on their Ford city-suburban test.

The 14 to 18 percent loss is greater than the 7 percent loss we would estimate for the weight change of 355 pounds over the 1975 base of 2498. Since no displacement changes were mentioned, it might appear that the emission standards are going to be responsible for the rest. However, the state of development of the 1978 emission control system has to be taken into account. The system described by Ford is still in an early stage of development. The results quoted by Ford may not represent the true potential of such a system when system development and optimization are completed.

As an example of what can be accomplished with further work, some data provided by Volvo is shown below. Volvo has been working with the 3-way catalyst approach longer than Ford, and therefore may be at a more refined state of development.

Volvo Data on Fuel Economy
Emissions and Systems

Engine Type/ Transmission	System	Standards Targeted For	Fuel Economy *
4 cylinder B20F/Manual	Engine Mods	3.4 HC, 39 CO, 3.0 NOx	20.0 mpg
4 cylinder B20F/Manual	Engine Mods/air injection and EGR	1.5 HC, 15 CO, 3.1 NOx	20.5 mpg
4 cylinder B21F/Manual	3-Way catalyst** & Fuel injection & feedback & EGR	0.41 HC, 3.4 CO, 0.4 NOx	20.4 mpg

* Based on 55/45 EPA Urban/Highway driving. (55% of the miles urban-45% of the miles non-urban).

** Durability of Volvo's 3-way catalyst system is not yet adequate to allow Volvo to meet the 0.4 gm/m NOx level for which the system is targeted.

The Volvo data indicate that the fuel economy at different emission levels may be about the same, once control systems are fully developed and optimized.

G. Fuel Economy due to a Freeze in Emission Standards

Ford claims on page 46 that the Pinto under a freeze could get a one-third improvement in fuel economy compared to their estimates of the fuel economy of the 1978 Federal Pinto. Attributing such a gain in fuel economy to a change in emission standards seems inconsistent. Earlier in the booklet Ford indicated that the 18 to 19 mpg of the 1978 Federal Pinto included safety and emission effects, but on page 46 the increase from 18-19 to 24 to 25 is credited to a freeze in emission standards alone. No mention is made on page 46 of assumptions for safety standards.

The discussion on page 39 of increased fuel economy for conventional engines and the improved fuel economy of the CVCC Pinto is an academic argument since there are no assurances given that such a system would be developed if standards are frozen particularly since Ford also indicated that the standards would have to be frozen for a long time for them to consider introducing the CVCC.

II. Cost and Benefits Associated with Ambient Air Quality Standards

The pamphlet questions the benefit associated with elimination of "smog", states that a large part of this benefit will be achieved by the control of stationary sources, and further states that the improvement of air quality due to automobile emission control has already or will soon be achieved due to present interim emission standards. Finally, the benefits of auto emission control are attributed primarily to California while the costs are attributed mostly to the other 49 states. Each of these topics will be addressed separately.

A. Benefits Associated with NAAQS

Mr. Iacocca refers only to "smog" in his assessment of health benefits. By "smog" it is assumed he means photo-chemical oxidants (Ox). Carbon monoxide (CO) and nitrogen dioxide (NO_2) are also auto related pollutants, but the health effects of these pollutants are not mentioned in the pamphlet.

The subject paper refers to one part of a health effects section of the National Academy of Sciences Report, Volume IV, "The Cost and Benefit of Automobile Emission Control". The data presented by Mr. Iacocca was developed from Table 5-9 on page 353 of this report. This table in turn was developed as an illustrative example of extrapolating a study of a small population in a small geographical area to the entire nation. The study was by D. Hammer, et al "Los Angeles Student Nurse Study" and related oxidant levels to various symptoms. The Hammer study included only healthy young female adults relatively free of chronic diseases, therefore it should tend to underestimate the effects for infants, older people and others with respiratory ailments.

The results of the Hammer study are not unimpressive when stated appropriately. One headache every three years, one day of eye irritation every two years and one day of coughing and chest discomfort every 33 years for the entire U.S. population, represents each year a total of 70,000,000 headaches, 105,000,000 days of eye irritation and 6,000,000 days of coughing and chest discomfort.

The report restates the original table in terms that are somewhat misleading. For example it says that these results (Table 5-9) are the only measurable direct health benefits that the NAS projected as a result of the whole national effort since 1973 to control the kinds of air pollutants associated with cars. Mr. Iacocca neglects to point out that the report went on the estimate a two hundred million to two billion dollar savings from the abatement of photochemical oxidants (page 35). The report also combined estimates of morbidity effects of oxidants and mortality effects of nitrogen dioxide to obtain a range between 360 million and 3 billion dollars for the annual potential benefits of control of the pollutants. Finally, the NAS report on page 3 of the Executive Summary concluded that the benefits in monetary terms that could reasonably be expected to accrue from implementing automobile controls are commensurate with the expected cost. Further there are several policy options (i.e. delay NO_x standard) that if implemented would lower control costs substantially bringing them below relatively conservative estimates of the benefits.

B. Benefits of Air Quality Improvement in California and Other 49 States

It is true that California, and the South Coast Air Basin in particular, suffers from more serious oxidant and nitrogen oxide air pollution than the rest of the country. In Los Angeles, oxidant and NO_2 concentrations were 675% and 82% over NAAQS in the early '70's while concentrations outside California were 300% over the O_x standard (Houston-Galveston) and slightly over the NO_2 standard (Chicago, New York).

If there would be no growth in the number and size in emission sources, then the amount of emission control needed on autos and other sources of HC and NO_x outside of California could be 75% reduction for HC and a slight reduction for NO_x. However, growth of emission sources is expected. At projected growth rates of 2.5%/year for autos, and 4%/year for other sources, the emission potential will be increased by:

28% in 10 years for autos
63% in 20 years for autos
48% in 10 years for other sources
120% in 20 years for other sources

In order to assure the maintenance of NAAQS through 1990, emissions outside California should be reduced to at least one half the no-growth figures. This argument supports regional emission reductions of about 90% for HC and at least 50% for NO_x. If emissions are projected beyond 1990, even greater reductions will be needed, for there is slight probability that growth will cease in 1990.

Note that the control of NO_x is less than the 90% reduction required by the Clean Air Act. This, in part, is why in November 1973, EPA recommended that the NO_x emission standard for autos be relaxed.

The California - 49 State distinction should not be applied to carbon monoxide concentration. CO is a local pollutant associated with high traffic density and poor dispersion (low wind speed, canyon streets, etc.). Such conditions are not unique to California. Indeed, CO concentrations 350% above the standard have been measured in Phoenix-Tucson, and North Alaska as well as in Los Angeles, and such concentrations are likely wherever high traffic densitiés occur.

In summary, reductions of regional emissions of HC and NO_x outside California should be at least 90 and 50 percent respectively in order to achieve and maintain NAAQS through 1990. Emissions of motor vehicle CO should be reduced somewhat more than 80%. The reduction of emissions from light duty automobiles needed to achieve these overall emission reductions will be discussed next.

C. Relationship of Emissions from Mobile and Stationary Sources

In 1970, emissions were distributed approximately as shown below. The percentages represent a composit of the 10 most polluted cities.*

Percent Contribution to Urban Emissions, 1970

	Autos	Other Mobile	Off Highway Engines	Gasoline Evaporation	Stationary Sources
HC	46	14	5	5	31
NO_x	32	18	5	-	45
CO	60-80**	20-40	-	-	-

*Source: "Air Quality and Emission Panel Report" DOT/EPA Fuel Economy Report, January 10, 1975.

**The range of values for CO reflects the wide variation in the composition of local traffic (autos, trucks, buses, motorcycles) an 80:20 division represents a city wide average; a 60:40 division represents an unusally high proportion of trucks as found in parts of central cities (e.g. New York).

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The percent contribution of autos is in all cases less than the needed reduction in emissions, therefore, NAAQS for O_x, CO, and NO_2 cannot be achieved or maintained by the reduction of auto emissions only; stationary and other mobile source emissions must also be reduced.

The degree of control needed for any one source category depends on the control applied to the others. If all sources were controlled equally, then the reductions stated earlier-90% HC, 80% CO, and 50% NO_x would be sufficient outside California through 1990. But all sources are not controlled equally. The overall expected reduction of emissions from the average stationary source through 1990 is expected to be 35-45% for HC and 10-20% for NO_x. These reductions are insufficient to maintain NAAQS for oxidants and NO_2 in some areas even if auto emissions are reduced to zero.

With this background, Mr. Iacocca's statement on page 25 may be addressed:

> "A large part of this benefit has been or will be achieved by controlling the same kinds of emissions from industrial plants and other stationary sources. Most of the remaining benefit already has been or soon will be achieved as older, dirtier cars are replaced by cars that meet today's stringent standards."

In fact, only a small part of the HC and NO_x emission problem is addressed by current stationary source control programs. Greater control of all sources is needed, and even with maximum practicable control technology, some limitation on the number and location of new sources will probably be needed in some areas if NAAQS for oxidants and NO_2 are to be maintained. The more emissions are reduced from all sources, including autos, the less restrictive limitations on the new development will have to be.

OMSAPC/EPA
1/31/75

RISING WEIGHT OF AUTOMOBILES

Mr. SHIPLEY. They also claim that the 1978 standards will add an extra 355 pounds to the base automobile. Have you heard this figure before?

Mr. STRELOW. That is the safety equipment which I am not an expert on, but I believe they are in the area of adding stronger bumpers, which I think do add weight to the vehicles. The emission controls would not add anything appreciably.

Mr. SHIPLEY. That is what I wanted to bring out. They say if the 1978 standards have to be met, that by adding 355 pounds per vehicle on the base vehicle you are going to cut the mileage down 2, 3, or 4 miles per gallon. Of course, with the energy situation we have now, this is ridiculous to go ahead with this.

I would just like to have your response on it.

DEFERRAL OF 1978 STANDARDS

Has Mr. Train made any statement with regards to a possible moratorium on the 1978 standards, or has he said absolutely not? What has he said? What are the thoughts of EPA?

Mr. STRELOW. We have recommended a deferral of the implementation of the more stringent standards until the early 1980s, but for really a different reason. If the concern were simply cost or fuel economy, we feel that our public hearings, which span about 3 weeks in February of this year, when we had the auto companies there under oath and other witnesses, quite amply demonstrated to us that achievement of the tougher emission statutory standards could be achieved without impairing fuel economy and without adding undue cost.

However, we have encountered the frustrating difficulty of the particular emission control device that the American companies at least have predominantly chosen to use, namely, the catalytic converter emitting potentially harmful quantities of sulfuric acid. Until we have this problem more under control, until we are able to set an emission standard for that unexpected pollutant, we have recommended that we not go to the tougher standards, because doing so would increase the level of sulfuric acid emissions even as it was further decreasing the others.

That has been our recommendation in this area, but not because of economic or technological factors.

Mr. SHIPLEY. I want it to be perfectly understood that I am for clean air. I voted for every piece of legislation we had, but it just seems to me it is such an important industry to this country, as I said, one out of six of the American people are affected by the auto industry, that maybe we might be moving just a little bit too fast.

I am not saying EPA in particular. I am saying the safety standards that the industry is having to meet.

When I look at the price of the car, if they are within 50 percent of being right, that is a heck of an increase, with competition already from imports.

LAB CERTIFICATION

When you have your certification labs set up in the exporting countries to the United States, will you have a very thorough monitoring and testing program on those?

Mr. STRELOW. That will certainly be a part of it, sir.

Mr. SHIPLEY. What do you have planned in that area?

Mr. STRELOW. Besides adding some money for this purpose, we have added positions, and a good part of the effort involved with those personnel would be periodic spotchecking, quality assurance, to make sure that the program we initially set up with a certified laboratory is in fact being carried out properly.

Mr. SHIPLEY. How much is in the budget for certification of the emission testing laboratories this year?

Mr. STRELOW. The total budget item I believe is 11 positions. This item has not been differentiated in the budget as between the certified laboratories and the high altitude, special high altitude testing that will have to be done to a limited degree in this country, so that the total budget amount stated, 11 positions and $600,000 will somehow have to be apportioned between these two efforts.

It may be on the order of say a half dozen people working strictly and exclusively on lab certification.

Mr. SHIPLEY. When will this be in full operation?

Mr. STRELOW. We would certainly like to get the laboratories certified as soon as possible. I don't know that we can predict confidently just how long that would take but I would hope within the fiscal year we could start the program and be able to get at least some of the laboratories certified. It shouldn't be that difficult a proposition when we identify the proper laboratories, if they are interested in participating.

Mr. SHIPLEY. One last question. When you establish your certification laboratories, and people are importing cars into the United States, you will be, as I understand it, monitoring those standards. I don't know how you would do that, but I am sure you have something worked out.

What recourse do you have if you find in a given year, say, in July, August, September or November, that those standards have not been met? What recourse do you have against the manufacturer and importer?

Mr. STRELOW. I believe the statute provides if a substantial number of any vehicle line are failing to meet the standards, and this can be attributed to a defect in manufacturing as opposed to just poor maintenance, then we can order the manufacturer to recall those vehicles and repair them at his own expense.

If it were clear I think that you simply had total noncompliance, the vehicles simply were not meeting the standards at all, I believe the certificate of conformity that is originally given based on the certification program could be revoked, and if it came to that the manufacturer simply would not be able to sell those cars involved.

Mr. SHIPLEY. Thank you, Mr. Chairman.

Mr. ROUSH. Were you able to or did you give us an amount as to how much is in the budget for certification of the emissions testing laboratories?

Mr. STRELOW. $400,000 would be the amount.

Mr. BAUCUS. Will the chairman yield?

Mr. ROUSH. Yes, Mr. Baucus.

Mr. BAUCUS. I have a couple of questions.

COSTS OF EMISSSION CONTROLS

How can we get good, firm figures as to what the costs are to the automobile manufacturers for conforming to emission controls and so forth?

Mr. STRELOW. We have figures we can certainly make available. I think my estimates which range between $125, which would tend to be for the smaller cars, up to maybe $250 for the larger cars, are quite well documented and we can certainly provide that backup documentation for you.

Mr. BAUCUS. How extensive are the materials that you have? As you know, there are all kinds of ways to gum up figures, different accounting procedures, inventory procedures, and you add them all together and there is a very, very wide variance in possibilities anyway.

I am wondering, are you satisfied? Do you know that all these procedures are being used at the second, third and fourth levels of accounting techniques?

Mr. STRELOW. Yes, sir, I am satisfied because we have this very useful procedure. I referred to it earlier this year on the question of a possible suspension of the standards. We had a hearing for 3 weeks in which the auto companies came in and submitted notebooks three times this size for each one of them. We can subpoena information from them and have, so we get all of their cost information out on the table, any data that the manufacturers of emission control equipment have.

I just don't think there is probably very much data available that we don't have and haven't been able to work over.

You still will have instances where the auto companies will make higher estimates, particularly when they are talking about future control requirements, because there you are making projections rather than having actual figures, but I think if you compare the estimates that we and the auto companies made in the past concerning the standards that are now in effect, and you look at the actual cost, I think our estimates have been proven to be quite accurate.

Insofar as the hardware now on the cars, I think we have very reliable data.

Mr. BAUCUS. Could you provide that information for the record?

Mr. STRELOW. I certainly will.

[The information follows:]

AUTOMOTIVE EMISSIONS—CONTROL EQUIPMENT COSTS

Model year and Item	List price by source [1]		
	EPA [2]	NAS [3]	Industry
1968–69			
Positive crankcase ventilation (PCV) valve	$0.40	$2.85	
Inlet air temperature control	5.00	3.80	
1970–72:			
Fuel evaporation control system	13.00	14.30	
Idle control solenoid	11.10	4.75	
Carburetor changes	3.00	.95	
Hardened valves and seats (for unleaded gasoline)	2.00	1.90	
Transmission control system		3.80	
Ignition timing		.95	
Choke heat bypass		4.18	
Compression ratio changes		1.90	
Cumulative costs through 1972	34.50	39.38	
1973–74:			
Exhaust gas recirculation (EGR), 11–14 percent	24.00	9.50	
Speed controlled spark timing	24.00	.95	
Precision cams, bores, pistons		3.80	
Transmission changes		.95	
Cumulative costs through 1974	82.50	54.53	
1975:			
Quick heat manifold	5.00	4.75	
High energy ignition	15.00	12.35	
Advanced carburetor	15.00	14.25	
Proportional EGR	20.00	30.00	
Air injection	40.00	43.32	
Subtotal for noncatalytic systems	95.00	104.67	$75–120
Oxidation catalyst (includes long-life exhaust system)	90.00	54.70	75–110
Cooling system changes		1.90	
Body revisions and material changes		2.85	
Assembly line changes and testing		5.65	
Subtotal	90.00	65.10	75–110
Cumulative costs through 1975	267.50	224.30	233–313

[1] List price includes both dealer and manufacturer profits.
[2] Environmental Protection Agency.
[3] National Academy of Sciences.

SELECTIVE ENFORCEMENT AUDIT

Mr. BAUCUS. One other set of questions.

Did you notice in the Federal Register a selected enforcement auditing procedure?

Mr. STRELOW. Yes.

Mr. BAUCUS. What is the status of that now?

Mr. STRELOW. That has been proposed for comment, and we intend to take final action on that as soon as possible. Perhaps Mr. Baum or Mr. Johnson could address that. That is part of the enforcement program.

Mr. BAUM. As I started to say before, the certification program tests prototypes, and that proves that the manufacturer has the capability to build a car that will in fact conform to the standards. The statute also provides for an assembly line. This is the selective enforcement audit. That program has been proposed and we are now in the final stages I hope of reviewing the comments. We hope that in this calendar year to start at least a small program and expand as we go along testing of assembly line vehicles to make certain that

they are in fact the same as the certified vehicles and are in fact meeting the standards when delivered to the purchaser, the initial purchaser.

Mr. QUARLES. If I could add a further thought on this, this is an extremely important area for the committee to understand, because there potentially could be an enormous gap between the determination that the auto company is producing cars which in the ideal sense through certification have been proved to meet the standards, and whether the cars coming off the assembly lines in fact meet the standards, and then whether they are maintained in use so that they continue to meet the standards.

In view of the enormous investment that the country is making to build cars that should meet the standards, it is extremely important we feel to follow through, developing the checkup systems and enforcement mechanisms to make sure that the benefit of that investment is in fact being achieved. That will, over the next several years, carry us into a substantial amount of development work for systems of in-use testing, and a certain amount of political controversy as those systems are put into use, and a requirement arises to communicate to the broader public what is being called for and why.

Mr. BAUCUS. Assuming this goes into effect, when do you reasonably think that you will be in operation with your testing?

Mr. BAUM. We hope to have, as I said, the initial program in this calendar year at probably a fairly modest scope and then to expand through fiscal 1976.

Mr. BAUCUS. Do you have any provision in the budget for this program?

Mr. QUARLES. Yes. This is covered in the budget.

Mr. BAUM. This is in the motor vehicle enforcement.

Mr. BAUCUS. It is my understanding that OMB is discouraging this; is that correct?

Mr. BAUM. There have been serious discussions. Again, I think a lot of it depends on us finally finishing, not finally because commenting closed only very recently, but finishing analysis of the comments. The problem here is that when you set an assembly line test, depending on how it is done and what the standard is, it can in fact be considered, or it may be considered, a more stringent standard than the manufacturers have been used to. Although there is no harm in that, that goes to at least the timing of it and the cost of compliance.

The question is we have to analyze those comments some more to make certain that this program can be instituted in the leadtime that I have just told you about, and that it doesn't in fact impose a more stringent standard that couldn't be met in that leadtime.

Mr. BAUCUS. Assuming you go through with this, do you feel there are adequate personnel in the budget request for 1976?

Mr. QUARLES. I think our budget request provides adequate personnel for fiscal year 1976. The question that remains for the future is the speed and effectiveness with which we can move forward on this entire front. That could and probably should entail the utilization of greater manpower and funds in future years.

Mr. BAUCUS. Thank you.

ENVIRONMENTAL IMPACT STATEMENTS

Mr. BOLAND. The committee's report last year—the other subcommittee that you appeared before—expressed concern that the agency's emphasis on installing scrubbers based on existing technology may be an overly restrictive and environmentally costly interpretation of the Clean Air Act.

What has EPA done by way of preparing environmental impact statements on all of its proposed actions to regulate emissions from stationary sources?

Mr. STRELOW. Mr. Chairman, under the court interpretations of the Clean Air Act, it has been quite unanimously concluded that the Environmental Protection Agency was not obliged to prepare environmental impact statements under the National Environmental Policy Act on its regulatory actions.

However, the agency recently adopted a policy of preparing impact statements on new national regulatory actions.

Obviously a number of programs that we already have in effect, which would include the one you have just described, do not fall into that category and would not be subject to an impact statement requirement.

COST TO UTILITIES FOR EMISSION CONTROLS

Mr. BOLAND. Do you have any current estimate of the total cost utilities will be required to spend for permanent controls to limit sulfur oxide emissions?

Mr. STRELOW. We can certainly provide those figures.

Mr. BOLAND. Will you do that?

[The information follows:]

Estimates of utility costs for compliance with sulfur oxide emission limitations vary with the assumptions made as to the types of controls and degree of control to be required. Two estimates are provided for costs: One estimate assumes that no amendments to the Clean Air Act will be made, the other assumes that the administration's proposed amendments will be adopted. The cumulative capital costs for the period 1975 to 1980 are estimated at $6.5 billion without amendments to the act and at between $4.2 and $5 billion with amendments to the act. These figures represent, respectively, 5.9 percent and between 3.8 percent and 4.6 percent of total utility investments of $110 billion that had been planned by the utility industry in the absence of environmental regulations.

Costs in the year 1980 (in terms of 1975 dollars) have been estimated at $3.6 billion without amendments to the act and at between $2.5 and $3 billion with amendments to the act. These amounts represents, respectively, 5.7 percent and between 4 percent and 4.8 percent of a projected $63 billion in operating revenues for the utility industry. An average consumer's monthly electric bill in 1980 would be increased by $1.50 and between $1.05 and $1.25 respectively, by the two options presented.

SULFUR OXIDE STANDARDS

Mr. BOLAND. Will you describe the testing being done to set sulfur oxide standards? How do you determine what is healthy to breathe? What are the tolerable limits of acid? Who makes the determination as to what is really healthy to breathe?

Mr. STRELOW. This determination in particular, let's say, for the sulfur oxide standards are made on the basis of various types of health data, clinical data, studies of effects on actual populations in different

areas, where other variables have been screened out so that you can actually correlate, at least to a reasonable degree, the differing incidence of health effects to the differing levels of pollution.

Based on all of this available medical information, our scientists come up with a standard which is then reviewed by an outside scientific review group. It is proposed for public comment and then finalized.

This was done back in the early days of the Agency; I guess it would have been in 1971. Since that time, the standards have been reviewed, at the request of the Congress, by the National Academy of Sciences.

Mr. BOLAND. What sort of testing do you do to set the standards?

Mr. STRELOW. The testing would involve studies. Perhaps Dr. Talley could elaborate more, but studies of human populations and others.

Dr. TALLEY. There are three ways we can find out the effects of any atmospheric pollutant on human health. One is the occupational exposure, acute exposure of humans to various pollutants, where the pollutant in question is the major contributor to increased morbidity.

Another is through epidemiological studies, where we try to make as close a correlation as possible between the dose that people are receiving and the effects that we observe.

The third is through clinical studies, that is animal studies, in which we give animals short-term exposures or in some cases very lengthy exposures, to various pollutants, determine their effects and then extrapolate our data to humans.

It is a difficult procedure because there is no such thing as the air pollution disease. We are looking for increases in morbidity, more difficulties with respiratory-circulatory problems, an earlier mortality or increases in the death rate during severe pollution episodes.

AREAS THREATENED BY AIR POLLUTION

Mr. ROUSH. Are there any areas of the country which are clearly threatened by reason of pollution at this time, wherein a combination of that pollution and atmospheric conditions might conceivably cause a national disaster?

Dr. TALLEY. A regional disaster or national?

Mr. ROUSH. A disaster which would be of such magnitude that the country would consider it a national disaster.

Dr. TALLEY. We have had them in the past.

Mr. QUARLES. Very rarely. I think what happens more typically is that individuals die in silence, and the ability to pinpoint who was a particular casualty is very difficult. There have been some incidents in the London smog problem which involved I think some 4,000 deaths that occurred in 1952 or thereabouts over a short period of time.

There are frequent episodes when the air pollution levels in a city in this country reach alert levels or emergency levels, but the likelihood of having several thousand people die within a short period of time, which would, if you have this in mind, catch the television attention in the sense of becoming an emergency disaster, I think is not really the type of problem that is concerning us.

Mr. BOLAND. Did you indicate that in England the smog was responsible for some 4,000 deaths during 1952?

Dr. TALLEY. It was in the 1950's.

Mr. BOLAND. One year?

Mr. QUARLES. This was I think in a matter of several days.

Dr. TALLEY. It was either 12 or 20 days.

Mr. QUARLES. The most severe episode of that sort we had in this country was at Donora, Pa.

Mr. BOLAND. How long has London been besieged with smog?

Dr. TALLEY. Since the industrial revolution.

Mr. BOLAND. Why hasn't there been a recurrence of that disaster?

Dr. TALLEY. They have managed to make enormous strides in cleaning up their air pollution problem.

Mr. BOLAND. Do you have any figure on the number of deaths in London caused by the smog as late as 1973 or 1974?

Dr. TALLEY. We understand that they quit keeping records in the 1960's because the smog problem that existed in the 1950's had been corrected.

Mr. BOLAND. All right.

HEALTH EFFECTS OF AIR POLLUTION

Dr. TALLEY. I would like to go back to the original question and not focus it on increased morbidity. It isn't as dramatic. It is insidious, but it is an economic disaster when someone who has a respiratory infection stays off work an extra day. There is no way of determining the actual economic cost to the country of absenteeism, lower productivity per worker, especially those involved with physical activities. We can't estimate it. We can get some handholds on it, on the sales of patent medicines; to take antihistamines and the like.

We can perform correlations in various parts of the country. We do know the effect is real, but we can't pin it down to a quantifiable number. That does not alter the fact that it is a real impact upon the American economy and the people.

Mr. ROUSH. I used the word "conceivable" in framing my question.

Dr. TALLEY. Yes.

Mr. ROUSH. Wherein we might have an unusual set of circumstances such as happened in, was it Pennsylvania?

Mr. QUARLES. Yes, Donora.

Mr. ROUSH. And possibly in London way back in the 1950s.

Mr. QUARLES. Hopefully we will not have that type of event occur in this country, because we now have, at least on a basis that is not ideal but it is significant, a capability for monitoring the air pollution levels, and as we did in the Birmingham episode of 3 years ago, when the levels rose to a danger point, the production facilities were shutdown temporarily until the air cleared. That hopefully could be done wherever that type of a threat might arise.

There are a number of episodes that occur each year, in which there is some curtailment of productive facilities in one city or another around this country because of the weather conditions that are posing a health threat.

Mr. ROUSH. Are you saying that the chances that it might have happened are much greater or would have been much greater had it not been for the activities of the Environmental Protection Agency?

Mr. QUARLES Yes, I think that is right, and the legal authorities established in the State and county agencies that work in that whole system.

Mr. ROUSH. Thank you, Mr. Chairman.

SLUDGE DISPOSAL FROM SCRUBBERS

Mr. BOLAND. What about the sludge disposal problem? Is this creating another environmental problem?

Mr. STRELOW. From scrubbers in particular?

Mr. BOLAND. Yes.

Mr. STRELOW. It certainly is a potential problem as I believe Mr. Train alluded to the other day. Large quantities of sludge can be generated from certain types of the scrubber process. However, I have seen and the agency has evaluated quite exhaustively a number of processes which are available, are being commercially offered and have been tried out in actual use, Duquesne Power plant in Pittsburgh I believe being just one example, of where the sludge can readily be fixed.

The sludge starts out as kind of a pasty sort of substance that does not solidify. However, with minor chemical additions it can essentially be converted into an inert type of substance that is very comparable to dirt.

If it is landfilled or spread on the land properly, there should not be environmental problems associated with it.

Mr. BOLAND. Is there such a thing as a reasonable solution to this problem without scrubbers?

Mr. STRELOW. Mr. Chairman, I think one of the most important factors to be aware of in this area is that neither this agency nor any State agency is advocating scrubbers as the solution of the problem.

There is, I think, a widespread notion that somehow EPA is out mandating scrubbers for every powerplant in the country. Really the vast majority of powerplants now are either in compliance or can come into compliance fairly readily without requiring the installation of scrubbers.

Mr. BOLAND. Without the use of scrubbers?

Mr. STRELOW. Yes, without the use of scrubbers.

CAPTURE OF EMISSIONS

Mr. BOLAND. Are you requiring that all particulate emissions be captured, that none can be emitted?

Mr. STRELOW. There are some requirements, these are State requirements I believe on certain types of steel facilities, that say no visible emissions in certain parts of the steel operation. These are frankly somewhat ambiguous. They could literally be interpreted to mean no particulate emissions from certain parts of the facility.

There are no EPA standards that I am aware of that require literally no emissions. There are new source performance standards which were authorized to set which require maybe in the range of 98 to 99 percent removal.

Mr. BOLAND. So really there are no facilities which can capture 100 percent of the particulates, no technology which can capture 100 percent.

Mr. STRELOW. There are certain processes where this can be done, certain discrete parts of, let's say, a steelmaking operation or something else. Our estimates here, if you look at the compliance picture for coal-fired powerplants by the year 1980, our estimates are that only 22 percent of the coal being burned would have to be treated, if you will, with scrubbers. The rest of it either is now in compliance, or could be brought into compliance with blending of some lower sulfur coal or what they call coal washing.

We are not talking about an enormous blanketing of the country with scrubber requirements.

Mr. SHIPLEY. I have had a lot of members ask me about it and I have seen it myself.

DISTRICT OF COLUMBIA POWERPLANT EMISSIONS

What is the law in the District of Columbia with regard to emissions from a powerplant? Are they stringent in the District of Columbia?

Mr. STRELOW. The District of Columbia has EPA-approved regulations. I can't tell you whether or not each and every powerplant is in full compliance at this point. There are approved and adequate regulations on the books, and plants are at least working toward compliance if not actually there.

Mr. SHIPLEY. The reason I asked, when I go home at night, just about dark or maybe a little after there is a place where you can see black bellows of smoke and it is very odd that I never see that in the daytime. It is always after dark.

Mr. STRELOW. That is an old favorite technique.

Mr. SHIPLEY. Who would monitor that situation; the District?

Mr. STRELOW. That would be the District of Columbia. Of course in some areas that are very visible from here it would be other jurisdictions such as Virginia. I know there is a facility I have often observed from my window over in Virginia.

Mr. SHIPLEY. I hope somebody reads that in the record, because I tell you it is black and it goes a half mile if the wind is right. It normally would go into Virginia, I guess, anyway. They should be the ones complaining.

IMPACT STATEMENTS FOR NEW SOURCE PERFORMANCE STANDARDS

Mr. BOLAND. On page A–17 in connection with the new source performance standards which you describe, do you plan to prepare environmental impact statements before each performance standard is proposed?

Mr. STRELOW. Yes, I believe that is correct.

AMOUNT SPENT TO DATE FOR EACH NEW SOURCE PERFORMANCE STANDARD

Mr. BOLAND. How much has been spent to date on research and development for each of these to establish the factual situations and develop alternative strategies?

Mr. STRELOW. Mr. Chairman, I would have to supply that specific figure for the record.

[The information follows:]

Standard	Contract costs	Direct operating costs	Total
Gas turbines		$91,000	$91,000
Kraft pulp mills	$7,500	74,200	81,700
Grain terminals	70,000	87,500	157,500
Sulfur recovery plants in petroleum refineries	18,625	56,100	74,725
By-product coke ovens	49,957	99,900	149,857
Chlor-alkali plants		39,800	39,800
Lime plants	49,750	42,500	92,250
Refuse fired generators	68,000	43,900	111,900
Carbon-black plants	72,360	23,600	95,960
Lignite-fired generator	41,250	34,000	75,250
Crushed stone plants	95,000	93,500	188,500
Electric arc furnaces in grey iron foundries	169,007	44,000	213,007
Phosphate rock plants	117,329	73,000	190,329
Sintering plants in steel mills	94,203	56,600	150,803
Asphalt roofing	40,750	51,900	92,650
Detergent plants	3,700	27,600	31,300
Dry cleaning plants	51,292	36,500	87,792
Vinyl and polyvinyl chloride manufacturing	320,964	272,000	592,964
Total	1,269,687	1,247,600	2,517,287

Mr. BOLAND. Is this done by contract?

Mr. STRELOW. A good part of this is done by contract but also a large amount of in-house expertise.

COST OF CONTRACTS FOR PREPARATION OF NEW SOURCE PERFORMANCE STANDARDS

Mr. BOLAND. That which is done by contract, will you supply a list of the contracts and the costs for the record? Is this too much of a task or can you do it?

Mr. STRELOW. No, we can supply that.

[The information follows:]

Standards and contractor	*Costs*
Gas turbines	
Kraft pulp mills:	
Walden	$2,500
Scott Research	3,000
Monsanto Research	2,000
Total	7,500
Grain terminals: A. D. Little	70,000
Sulfur recovery plants in petroleum refineries:	
Scott Research	11,125
Clayton	7,500
Total	18,625
By-product coke ovens:	
PedCo	18,832
Engineering Science	2,750
Battelle	28,000
Betz	375
Total	49,957

Standards and contractor	*Costs*
Chlor-alkali plants	
Lime plants:	
Walden	$1, 500
RTI	30, 000
IGCI	7, 000
Monsanto Research	11, 250
Total	49, 750
Refuse-fired generators, IGCI	68, 000
Carbon black plants:	
PedCo	10, 110
Walden	1, 000
BMI	24, 000
Clayton	19, 750
Battelle	17, 500
Total	72, 360
Lignite-fired generators:	
A. D. Little	6, 000
York Research	1, 250
Monsanto Research	15, 000
Clayton	1, 500
A. D. Little	17, 500
Total	41, 250
Crushed stone plants:	
York Research	19, 250
Engineering Science	26, 250
Clayton	13, 500
Walden	1, 000
A. D. Little	35, 000
Total	95, 000
Electric arc furnaces in grey iron foundries:	
Geomet	67, 857
IGCI	25, 000
BMI	38, 500
Walden	1, 000
York Research	15, 000
Midwest Research	21, 650
Total	169, 007
Phosphate rock plants:	
Catalytic, Inc	15, 204
Walden	1, 500
IGCI	21, 000
Engineering Science	33, 750
Midwest Research	45, 875
Total	117, 329
Sintering plants in steel mills:	
PedCo	12, 078
York Research	67, 000
Pacific Environmental	1, 250
Clayton	1, 375
Walden	1, 500
IGCI	11, 000
Total	94, 203

Standards and contractor	*Costs*
Asphalt roofing:	
Betz	16, 500
Battelle	2, 750
Walden	1, 500
RTI	20, 000
Total	40, 750
Detergent plants, Environmental Science and Engineering	3, 700
Dry cleaning plants:	
TRW Systems	49, 792
Walden	1, 500
Total	51, 292
Vinyl chloride and polyvinyl chloride manufacturing:	
A. D. Little	84, 993
Air Products Corp	68, 146
IGCI	45, 000
PedCo	24, 700
Scott	18, 125
Clayton	10, 000
RTI	70, 000
Total	320, 964

AMBIENT TREND MONITORING

Mr. BOLAND. On page A–18, you have 80 people in ambient trend monitoring. Where are these people and what do they do?

Mr. STRELOW. The majority of our people involved in monitoring activities are located in the individual regional offices and are working with specific state and local programs.

In addition to that, we have our central air data bank in Durham, N.C., where we keep a national data file on air quality readings from around the country. This data provides information on the status of air pollution around the country and the trends over time.

Mr. BOLAND. How does this work compare with that for establishing stationary source standards and guidelines?

Mr. STRELOW. The ambient trend monitoring relates specifically to stations sampling the ambient air. It is not related to stack monitoring which is really part of the compliance effort.

Mr. BOLAND. When you talk about stations that monitor ambient air, are you talking about mechanisms that determine what the quality of the air is at that particular station?

Mr. STRELOW. That is correct.

Mr. BOLAND. How accurate is the particular mechanism that measures the ambient quality of the air?

Mr. STRELOW. It varies by pollutant. There are some pollutants for which we have monitoring technologies that have a higher degree of reliability than others.

Dr. Talley may want to elaborate on that.

Dr. TALLEY. Essentially that is the right answer. It varies by pollutant.

We are constantly improving our instrumentation.

AIR TECHNICAL ASSISTANCE

Mr. BOLAND. Under technical assistance, you have 324 people, do you not?

Mr. STRELOW. What page are your referring to?

Mr. BOLAND. The table on page A–8 indicates 324 people will be used.

How will they be assigned, and how will they be used?

Mr. STRELOW. Technical assistance is probably the broadest single category within the air program efforts. It obviously involves a multitude of activities, much of which is working with State programs who really carry the bulk of the load of the whole pollution control effort.

We find in many areas, particularly as the program gets more and more sophisticated as it has been required to under the Clean Air Act, that individual State programs in many cases simply do not have the fully rounded technical expertise that we have tried to develop and establish within our agency, so that we are dealing with a type of activity that States have not typically controlled before, or if we are talking about standards that go beyond previous State requirements in their sophistication, perhaps in monitoring required, we find it simply takes a good bit of effort to help the States to do the job that they are really holding the bag for, so to speak.

FEES FOR TRAINING

Mr. BOLAND. It has been reported that the Office of Management and Budget has directed EPA to initiate charges for training programs. Since many States and localities will be reluctant to pay these fees could this really preclude them from obtaining trained personnel for the necessary surveillance, abatement and control activities?

Mr. STRELOW. This does have a tendency to inhibit the full participation of State and local personnel.

Mr. BOLAND. Are you initiating charges for training programs?

Mr. STRELOW. We have initiated charges. We have had permission to date, to waive those charges for State and local personnel but not for other people who might want to participate. We have specifically requested that we be allowed to extend that waiver.

Mr. Alm may want to comment because this is an agencywide issue.

Mr. ALM. Right. By June 30 we would no longer grant waivers to the State and local governments under an agreement with OMB announced in the Federal Register. We have requested the Office of Management and Budget for authority to continue a waiver policy for State and local governments.

OMB AUTHORITY ON TRAINING

Mr. BAUCUS. Would the chairman yield?

Why is OMB involved in this?

Mr. ALM. OMB has been involved in general with the training program across the range of government activities, and it has been specifically involved both in the EPA's regular training grants and in the area of direct training.

Mr. BAUCUS. Why in training?

Mr. ALM. Because training is an activity that cuts across so many Federal agencies. With respect to the direct training, EPA is very concerned that the requirements of tuition fees for State and local governments could have an adverse impact on our direct training activities. For this reason we are asking authority to continue to waive these fees.

Mr. BAUCUS. OMB then has the power to deny that authority so that you can't get the waivers; is that right?

Mr. ALM. That is correct.

Mr. BAUCUS. Where is this located?

Mr. ALM. It is authority OMB exercises generally in terms of the budget. This does have an effect on total Federal revenues, because the funds would become part of general Federal revenues.

Mr. TALCOTT. Some people think that the Federal Government ought to be a service agency and not a training agency or a postgraduate school. Almost all of the agencies would hire and have all of these training facilities and it would go on and on. You wouldn't know the Federal Government from a high school or college. They could train everybody they wanted to. Thank goodness we have got somebody like OMB that says you have to draw some lines.

Mr. ROUSH. Will you yield?

This is not a statutory authority which OMB is exercising then. As of June 30, a statutory authority to waive these charges expired.

Mr. ALM. That is correct.

Mr. ROUSH. It is really an edict of OMB.

Mr. ALM. It is exercising a general authority with respect to the budget.

Mr. SHIPLEY. If Congress appropriated the money for those training programs, you would spend it; is that right?

Mr. ALM. I beg your pardon, sir?

Mr. SHIPLEY. If Congress appropriated and earmarked money for that purpose, you would go ahead and spend it?

Mr. ALM. I would assume so; yes, sir.

Mr. ROUSH. I would tend to agree with Mr. Talcott that that shouldn't be that we have a proliferation of these training programs, but on the other hand it seems to me there should be statutory authority for doing it, and that this Office of Management and Budget should not be able in what I would describe as a high-handed manner in making that determination. I think it should rest in statutory authority.

Mr. TALCOTT. I don't know what the purpose of OMB on this was, but we all know that if there is a real proliferation of agencies developing their own schools it could run into a pretty horrendous amount. For the agency that has the general overall budgetary responsibility to get some coordination between all of the agencies and some limitation on it, I think it is a pretty good idea.

Maybe some committee of the Congress ought to look into all of the extracurricular education that is provided by all of the agencies and set some policy. It would seem to me that OMB probably is the agency that should set the policy without special designation of that authority by some other committee of the Congress.

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AUTHORITY FOR USER CHARGES

Mr. ALM. Mr. Chairman, could I supply for the record an explanation of what authority OMB is exercising here?

Mr. BOLAND. Yes.

[The information follows:]

Title 31, U.S.C. 483a, authorizes user charges to persons or organizations for any work or services provided to them by any Federal agency. Such work or services provided shall be as self-sustaining as possible. The President is authorized to prescribed such fees or charges as he shall determine to be fair and equitable, taking into consideration the direct and indirect costs to the Government, value to the recipient, and public policy or interest served. Such fees shall be collected and paid into the Treasury as miscellaneous receipts.

Office of Management Circular No. A–25 on "User Charges", dated September 23, 1959, implements this title and sets forth the general policies which govern the establishment of fees for service by agencies in the executive branch. Notifications of fees to be charged are published in the Federal Register.

Mr. BAUCUS. If you don't know the information, perhaps you could supply it for the record. But if you know now you could speak to it generally.

To your knowledge, what guidelines did OMB use in granting and not granting these kinds of waivers?

Mr. ALM. We are dealing with this particular program affecting direct training. I am not sure I can answer that question Government-wide. In our training grants to universities OMB has applied the general policy of phasing out these programs, as a Government-wide policy.

With respect to the direct training, that is, training performed directly by EPA, I don't know what specific criteria OMB has applied.

[The information follows:]

AUTHORITY FOR USER CHARGES DIRECT TRAINING

The policies applicable to all fees or services were issued in OMB Circular No. A–25, "User Charges." A reasonable charge should be made to each identifiable recipient for a measurable unit or amount of Government service or property from which he derives a special benefit over and beyond those accruing to the public at large. No charge should be made for services when the identification of the ultimate beneficiary is obscure and the service can be primarily considered as benefiting broadly the general public. This is the criteria context within which OMB, in liaison with executive agencies, decides on whether fees should be charged or waived.

AIR CONTROL AGENCY SUPPORT GRANTS

Mr. BOLAND. On page A–25, will you explain the basis for your request of $47,768,000 for control agency support, and what these grants are used for?

Mr. STRELOW. Mr. Chairman, the control agency support grants are the basic funding mechanism which we provide to the States to carry out the whole range of their responsibilities under the Clean Air Act. I think it is important to realize that under the Clean Air Act, State agencies have been expected to do considerably more, and with greater depth and sophistication, than was the case prior to Federal legislation.

This particular request is really a holding of the line, if you will. The funding for the last several years, as I believe was mentioned this morning, has been at the $51 million level. This request of $47 million would be enough to maintain that level, given a small holdover from last year.

Mr. BOLAND. I think I also asked this morning with reference to this same matter how much the States actually put into these programs.

Mr. STRELOW. I believe the figure was 57 percent from the States and 43 percent from the Federal Government.

Mr. BOLAND. In this particular activity, what did you ask the Office of Management and Budget for?

Mr. STRELOW. I believe our request for fiscal 1976 was $67 million compared to the $47 million here. I appreciate the chance, if you will, to comment on the earlier question which addressed was how much could the States use?

I cited the figure of $80 million, which would be the full amount if the States were to adequately carry out all of their responsibilities under the act. We think that would be the amount they would ultimately need.

I do not want to leave an impression that because our request to OMB was less than the $80 million that States could not probably use the full amount.

GRANTS AWARDED TO STATE AND LOCAL AIR POLLUTION CONTROL AGENCIES

Mr. BOLAND. Will you provide for the record for control agency support the amounts provided to each State in 1974 and in 1975?

Mr. STRELOW. Yes, sir.

[The information follows:]

State	Fiscal Year 1974	1975*
Alabama	$1,443,312	$ 875,000
Alaska	165,100	186,000
Arizona	658,761	715,000
Arkansas	407,000	250,000
California	3,611,240	3,863,000
Colorado	646,333	710,000
Connecticut	1,240,972	1,414,000
Delaware	131,250	270,000
District of Columbia	364,000	240,000
Florida	924,493	1,025,000
Georgia	684,250	780,000
Hawaii	189,435	251,000
Idaho	205,100	214,000
Illinois	2,914,358	2,945,000
Indiana	1,183,822	1,310,000
Iowa	579,780	540,000
Kansas	476,293	479,000
Kentucky	953,267	1,170,000
Louisiana	807,200	385,000
Maine	106,000	192,000
Maryland	802,468	1,153,000
Massachusetts	1,116,982	1,123,000
Michigan	1,999,424	1,875,000
Minnesota	674,098	705,000
Mississippi	392,875	470,000
Missouri	1,090,698	1,114,000
Montana	326,000	340,000
Nebraska	408,642	324,000
Nevada	293,311	388,000
New Hampshire	172,546	211,000
New Jersey	2,178,144	2,230,000
New Mexico	328,800	495,000
New York	4,849,997	4,980,000
North Carolina	1,361,523	1,450,000
North Dakota	69,000	120,000
Ohio	$2,605,619	$2,522,000
Oklahoma	471,600	520,000
Oregon	668,400	729,000
Pennsylvania	4,011,636	3,290,000
Rhode Island	265,000	185,000
South Carolina	493,967	550,000
South Dakota	27,667	95,000
Tennessee	884,317	1,010,000
Texas	2,398,800	2,910,000
Utah	150,000	165,000
Vermont	150,000	180,000
Virginia	664,646	954,000
Washington	1,083,400	1,151,000
West Virginia	26,000	458,000
Wisconsin	824,170	905,000
Wyoming	100,000	130,000
American Samoa	0	0
Guam	66,150	156,000
Puerto Rico	226,124	400,000
Virgin Islands	77,735	80,000
Total grants	48,951,705	51,182,000
Special support 1/	2,915,999	336,000
Total	51,867,704 2/	51,518,000

*Estimated

1/Special support includes grant and contractor assistance for State Implementation Plan development, revision, and evaluation. The figure for fiscal year 1975 includes only funds for multiregional projects administered from headquarters.

2/This figure includes funds carried from previous years.

Mr. BOLAND. How much has been used for demonstration grants this year? How much of the total dollar figure has been used for demonstration grants?

Mr. STRELOW. In the year?

Mr. BOLAND. Yes.

Mr. STRELOW. I'm not sure that I have that information readily available.

Mr. BOLAND. You do have demonstration grants under this activity? Assistance to provide State and local agencies through grants, assignment of personnel to State agencies, special contract support, and demonstration grants under this $47 million that you are requesting?

Mr. STRELOW. We are spending about $280,000 this year for demonstrations.

AIR MONITORING NETWORKS

Mr. BOLAND. Has EPA established, and is it now operating, an adequate measuring and monitoring system which is reliable enough to prove compliance or noncompliance with standards in a given air quality control region, to determine whether emission standards are stringent enough, and which sources are responsible for noncompliance?

You have talked a little about the mechanisms which you use. What about this?

Mr. STRELOW. Mr. Chairman, several years ago the determination was made that the full national air quality data system would really have to be essentially a State-run system, pursuant to certain EPA guidelines and requirements. To run it nationally did not seem to be the most effective way to do it. At that point we then laid out requirements for the States as to numbers of monitoring sites and the type of monitoring methods to be used.

Mr. BOLAND. And how did you arrive at that criteria, the number of monitoring sites and the types of mechanisms to be used? How did you arrive at those conclusions for particular States?

Mr. STRELOW. It is really a mix of factors from a technical meteorological standpoint, for example. One can make a fairly good estimate of the frequency or distribution of monitoring sites that would be needed to make sure that a violation would not likely go undetected, slip in between the available stations, for example.

There is also obviously a very practical consideration of cost and feasibility so our requirements have, I think, been an accommodation of those two principal factors, what would be ideal to have as a completely thorough network, and what is reasonable in the near term.

Dr. TALLEY. Mr. Chairman, it is an iterative process. One builds a mathematical model, generally computer based, using physical-chemical principles. You validate it with a certain limited number of monitoring stations. Then you discover, for instance, in your area, Mr. Talcott, the Livermore Valley wanted to limit growth and as the model was developed and the monitoring stations increased it was discovered the main contributions to the Livermore air pollution came from San Jose.

Mr. TALCOTT. It is a real problem up there.

Dr. TALLEY. Then one relocates the number of stations and improves the monitoring effort.

Mr. BOLAND. What Federal financial and technical assistance is available to States and localities to set up and conduct a comprehensive monitoring program, especially in priority 1 areas?

Mr. STRELOW. Mr. Chairman, approximately $10.2 million of the State program grants is used by the States for monitoring networks. I am also informed there are some 50 EPA personnel in our 10 regional offices whose specific function is to assist in this area.

ENFORCEMENT OF AIR STANDARDS

Mr. BOLAND. On page A–27, $12,020,000 is requested for the enforcement of air standards. What progress is being achieved to assure compliance with the standards that have been set?

Mr. JOHNSON. Mr. Chairman, I am the Assistant Administrator for Enforcement.

We have identified approximately 20,000 sources which emit over 100 tons per year as major sources to focus on in stationary compliance program. To date we have investigated approximately 16,000 of those sources and the vast majority of them have been put on maintenance schedules either by the States or by EPA, so that by the end of fiscal 1975, we anticipate that out of the total 20,000 sources we are concerning ourselves with, something like 85 percent will be in compliance with the requirements of the applicable implementation plans. The remaining 15 percent that either have not been investigated yet or are not in compliance.

TRANSPORTATION CONTROL PLANS

Mr. BOLAND. On page A–28 you talk about transportation control plans. What is planned next year for enforcement of the TCP for urban areas?

Mr. JOHNSON. Mr. Chairman, we are trying to enforce only those parts of the plan which we feel have a realistic chance of success. Perhaps the best example I can give you thus far is the issuance of notices of violations to four jurisdictions with respect to the failure to implement requirements for inspection and maintenance programs with respect to automobiles that have been sold and are to be maintained if they are to do the job that they were instructed to do.

We have recently issued four sets of notices of violation to four different metropolitan areas around the country which are designed to get those programs installed. We have also issued a few notices of violation in connection with other aspects of the TCP's involving, to some extent, traffic patterns and bicycle lanes, bus lanes, and so forth, but the vast majority of those provisions are being worked out on a negotiated basis.

ENFORCEMENT OF TAMPERING PROVISIONS

Mr. BOLAND. What about the other part of that paragraph saying that other activities of the mobile source enforcement program include the enforcement of the tampering provision which makes it a pro-

hibited act for any manufacturer or dealer knowingly to remove or render inoperative a vehicle emission control system after sale of the vehicle?

What penalties are imposed on the owners who fail to maintain the system?

Mr. JOHNSON. A manufacturer or dealer who takes the device off would be committing a criminal act and the statute provides both criminal jail sentences and fines. Our method for dealing with that kind of problem has been to refer those cases to the Justice Department.

Mr. BOLAND. Does that extend down to individual owners?

Mr. JOHNSON. No, sir.

Mr. BOLAND. Including notices of violations, abatement orders, and court actions, enforcement actions would be taken only when States fail to act; is that true?

Mr. JOHNSON. Yes, sir.

ENFORCEMENT ASSISTANCE TO STATES

Mr. BOLAND. The States complain that the EPA regional offices are more concerned with the States meeting paperwork deadlines imposed by the frequently changing regulations than with providing assistance in implementing and enforcing standards.

What do you say to that?

Mr. JOHNSON. I think that is a real problem, Mr. Chairman, and one that we are endeavoring to overcome. I think our thrust is to try and take care of the problems we have bitten off to date and reduce the new ones we are laying on.

Of course, the courts have issued orders to us requiring us to implement new programs and there is a tension here between the new programs and the ones we are already working on.

Mr. BOLAND. Does EPA attempt to complement the efforts of State and local agencies, and to facilitate operations by these agencies?

Mr. JOHNSON. Yes, sir, we certainly do.

Mr. BOLAND. How do you do it?

Mr. JOHNSON. In the enforcement areas we work very closely with the States and endeavor to get them to take the first action or for some reason have not taken action that we use our own enforcement activities.

Mr. BOLAND. Additionally, in the opinion of those who have been in touch with this committee from some of the States, situations develop where, because of noncompliance by a major polluter with national standards, cities are asked to shoulder economic and social hardships to make up this deficiency, and at the same time meet deadlines for ambient standards.

This was said to be the case when automakers would not comply with emission standards and EPA imposed transportation controls on many urban areas with projected dire economic and social consequences.

I suppose the question here is, is a common sense approach or a legalistic solution best in this kind of a situation?

Mr. QUARLES. I guess the obvious answer is that a common sense solution makes the most sense.

Mr. BOLAND. Do you want to leave it there?

Mr. QUARLES. Almost. I want to add just one additional point, and that is to say that I think that that concern arose from the comments of many people that when the auto industry was given more time to meet the deadlines, that would force a ratcheting tighter of the transportation control requirements.

We rejected that approach.

We made a policy decision that we would not go back and attempt to tighten up on the transportation control plans to make up the loss, but that the transportation control plans were already complicated and difficult enough as they were, so we have continued to try to implement them as they had been established, and not make them tighter, as that question perhaps suggests.

MOBILE ENFORCEMENT TESTING SYSTEM

Mr. BOLAND. On page A–41, in the first paragraph, you mention that the requested increase provides for the development of an EPA mobile enforcement testing system, METS.

Can you describe this plan for us?

Mr. JOHNSON. Yes, sir, I can. This is part of the selected enforcement audit program that was referred to earlier which complements existing certification program.

Basically it is designed to insure that the automobiles are being constructed in accordance with the prototype models that have been certified by EPA.

We have examined the possibility of a central locality to which automobiles would be shipped from all around the country. That is a possibility. The difficulty with it however is that the automobiles may be damaged in shipment and this may make it difficult to determine whether or not the damage or the construction is what caused it to fail the test. Therefore, we have proposed a mobile enforcement facility which would be able to travel around the country and spend two or three weeks at each of the automobile manufacturing plants and test a certain number of vehicles coming off the line at that facility, and therefore give us a national program at a very much reduced cost.

Basically it would only involve, I think, about 10 or 12 positions and two or three vehicles which would be able to cover the entire country.

EPA RECALL PROGRAM

Mr. BOLAND. In the last paragraph on that page, under in-use, you state the activity of the recall program is expected to increase in 1976.

Will you explain this to us? What is the recall program and what sort of activity was there in 1974? What was the recall program in 1974, and up to the present date?

Mr. JOHNSON. Let me refer that to Bob Baum, our Deputy Assistant Administrator for Enforcement. He has been more involved in that than I have.

Mr. BAUM. The recall, Mr. Chairman, is under the authority of the EPA to order the manufacturers to recall at no cost to the owners of

the car. If we are able to determine that a substantial number are exceeding the statute, and that it is not the owner's fault, that he has properly maintained the vehicle, there are a number of aspects to the recall program, one of which was discussed with Mr. Strelow, a formal in-use testing program.

The recall exists also outside of that. For example, during the past year we determined that in one major automobile manufacturer a certain valve he was using was failing after a short period of time and was leading to emissions exceeding the standard.

We worked out an arrangement under our authority with him that he recalled 800,000 cars. It was worked out in the sense that we sat down with them and decided what would be the most effective way to reach those customers, to convince them that they should bring their car in, that the proper parts were at the dealers and the dealers knew how to fix them.

There have been other smaller recalls over the past year involving smaller numbers of cars.

Mr. BOLAND. Like how many? What are the numbers?

Mr. BAUM. There was one case involving 2,000 cars. It was a misplaced part that we discovered on the assembly line. It was discovered by the company and by us, I believe, in that case before it was put in too many vehicles. There were, I think, a total of 458,000 vehicles recalled by manufacturers last year.

Mr. TALCOTT. But does anybody bring their car back in when you write a little note and say there is something wrong and it might cause a bit of extra emission? When we get a recall that says a brake is likely to fail, I think you get a high percentage of those people coming back in, but I wouldn't think you would get anybody bringing it in for emission control.

Mr. BAUM. That is a very real problem, Mr. Talcott. We were very concerned about that, especially after seeing the results of some of the safety recalls. Oddly enough, and I can't explain it, we have had a better record of cars being brought back to their dealers than safety. We have compared notes with them.

Mr. TALCOTT. There is a good reason for that.

Mr. BAUM. Maybe you could tell me.

Mr. TALCOTT. They want to get back at the manufacturer. They are the kinds of people who really want to get back at them.

Mr. BAUM. Maybe that is it. Whatever it is, we are pleased with it. The recall, if it is conducted properly and fairly timely, we think is an effective tool.

TRANSPORTATION CONTROL PLANS

Mr. SHIPLEY. Turn to page A–43. Tell the committee about the status of the transportation control plans that you outline on that page. Where are they and what are the plans?

Mr. STRELOW. I guess that is my enjoyable task.

You can measure it in different ways, 27 areas or 34 metropolitan areas are included in the plans. Basically a number of the major metropolitan urban centers require transportation control plans. For these areas, it has been determined that, even with implementation of the new car emission controls, there will still be violations of the

health standards, particularly for oxidants, which are a product of the hydrocarbon emissions from automobiles.

Plans have been developed for these areas. In a number of cases unfortunately they had to be promulgated by EPA under its residual authority under the act. The act provides that States are to develop implementation plans which are to be reviewed and approved by EPA. If a State fails to prepare an acceptable plan, EPA must promulgate the plan. The Agency initially tried to defer the full implementation of transportation control measures.

A court order said we couldn't do that and gave us a very, very short time deadline within which such plans had to be developed. So now we have, in a number of areas, plans which, quite frankly, we are trying to work out with the local jurisdictions involved. We would like to have plans that may be more of their own making to the extent that we can develop such plans, because it is just clear as can be that to the extent that plans are perceived as being imposed, there are a number of difficulties in enforcing.

AREAS WITH TRANSPORTATION CONTROL PLANS

Mr. BOLAND. How many control plans do you have?

Mr. STRELOW. There are 27 areas where there are transportation control plans.

Mr. BOLAND. Will you list those areas for the record?

Mr. STRELOW. Yes, sir.

[The information follows:]

Metropolitan Boston Interstate (Massachusetts); Hartford-New Haven-Springfield Interstate (Connecticut and Massachusetts); New York-New Jersey-Connecticut Interstate (New Jersey and New York); Metropolitan Philadelphia Interstate (Pennsylvania and New Jersey); Rochester (New York); National Capital Interstate (District of Columbia, Virginia, Maryland); Metropolitan Baltimore Interstate (Baltimore); Southwest Pennsylvania Interstate (Pittsburgh); Metropolitan Chicago Interstate (Chicago); Metropolitan Indianapolis (EPA proposal); Minneapolis-St. Paul; Metropolitan Cincinnati Interstate; Metropolitan Houston-Galveston; Metropolitan Dallas-Ft. Worth; Metropolitan San Antonio; Metropolitan Denver; Wasatch Front Intrastate (Salt Lake City, Utah); Phoenix-Tucson Intrastate (Arizona); San Francisco Bay Area; Metropolitan Los Angeles; San Diego (California); Sacramento Valley (California); San Joaquin Valley (California); Northern Alaska Intrastate Region (Fairbanks); Portland Interstate (Oregon); Puget Sound Intrastate (Seattle, Wash.); Eastern Washington-Northern Idaho Interstate (Spokane).

MASS TRANSIT PLANS

Mr. BOLAND. As you note, we have been over this ground a few times, and it is because there is a considerable interest in the Congress on it. As you know, last year there were efforts made on the floor by some of the Members of Congress who are terribly concerned about these plans. Consequently, this committee, charged with the responsibility of defending this budget on the floor, is anxious to have the best arguments that you can put forward, either for or against the plan.

Mr. TALCOTT. Does the transportation control plan deal with mass transit plans as well as vehicular traffic?

Mr. STRELOW. That is one of the elements. They rank from essentially hardware requirements, such as inspection and maintenance programs, through efforts which are really aimed at reducing the total amount of vehicle miles traveled. Efforts to develop carpooling programs and to stimulate more use of mass transit fall within this category.

DISTRICT OF COLUMBIA MASS TRANSIT

Mr. TALCOTT. Here in Washington there is quite a clash between what you would call the environmental interests and the economic interests of people, and so we have developed a subway system supposedly to help both. But right now they are running out of money, and apparently OMB and the Department of Transportation are dragging their feet so far as funding is concerned for the subways, so it is going to be delayed. It is going to cost more, and we are not going to get the vehicle emissions from automobiles off the streets very fast.

Are you pressing OMB and the Department of Transportation and the other people to hurry along on this program?

Mr. STRELOW. OMB and the Department of Transportation have both been forthcoming in agreeing with us on the need to target available funds to the extent possible to the areas that need them, not just because they want a mass transit system, but because they need it to help solve a health problem with their air quality.

Mr. TALCOTT. We are one of those areas right here.

Mr. STRELOW. I can't speak to the specific situation, but I know that as a general matter of policy, which has been agreed to, there has been an attempt to target funds.

Mr. TALCOTT. Where is your office? Aren't you located here in town?

Mr. STRELOW. Yes. I am aware of the Washington area situation. To some extent, I know it has been a matter of appropriations, of changing authorities now with the mass transit legislation. I am not specifically familiar with the precise reasons for delay.

Mr. TALCOTT. You have heard of alerts telling people with faint hearts to stay home?

Mr. STRELOW. Absolutely.

Mr. TALCOTT. So there is a real problem.

Mr. STRELOW. That is right. There is no question that delays in constructing mass transit systems or expanding bus fleets in many areas does have an impact.

Mr. TALCOTT. You seem to have the authority to get at the automobile manufacturer who has got something wrong with a valve to fix it. And you have the authority to force the city of Watsonville to build a water and sewage plant. But you don't seem to have any authority to get the District of Columbia people to move along. Here is a big problem, but you don't seem to put any pressure on these people.

Mr. STRELOW. I am sure part of the question is simply a very practical one of realistic enforcement authority. One of the problems we face in the transportation area is the specter that is raised. Is EPA going to sue a mayor, throw a mayor in jail, visions like this. We have enforcement authority, but there are obviously areas where, as

a practical common sense matter, it is much easier and we have more explicit authority, for example, with respect to auto manufacturers to make things happen.

When you are talking about something complicated like mass transit funding, I suspect it is just inherently very difficult to find a clear-cut procedure to make that happen.

Mr. TALCOTT. That is a good answer.

REVISIONS TO TRANSPORTATION CONTROL PLANS

Mr. BOLAND. With respect to the TCPs, would you indicate what revisions in plans and implementation is planned? Also, what enforcement measures are expected? You can do that for the record.

[The information follows:]

Transportation control plans have been and will be amended in several ways to provide greater flexibility in implementation. First, on January 15, 1974, the Environmental Protection Agency, in response to Congressional intent, revoked all parking surcharge measures from transportation control plans. Second, on August 22, 1974, amendments were proposed to the regulations for the management of parking supply. These amendments, which soon are to be promulgated in final form provide much greater flexibility in implementing measures to reduce areawide growth of vehicle miles traveled. Third, the Environmental Protection Agency is drafting a notice revoking certain catalytic retrofit regulations which currently require in-use vehicles in some areas to be equipped with catalytic converters.

Since the promulgation of transportation control plans for the 27 transportation control areas, the Agency has proposed revisions to the Boston transportation control plan and is currently evaluating state submitted data prior to proposing changes to the transportation control plans for Texas. The proposed revisions are based on recent court decisions which required a reevaluation of technical air quality data.

Progress has been made in implementing all of the transportation control measures. For example, motor vehicle emissions inspection and maintenance programs are being implemented in New Jersey, Cincinnati, Chicago, Phoenix, and Los Angeles, with other areas planning to begin programs this year. Parking management plans are being developed for five California cities as well as for Portland, Oregon and for Seattle, Washington. Several cities, such as Philadelphia, are inaugarating new bus lanes to provide better mass transit service, while other cities, such as Seattle, are instituting "parking freeze areas" to discourage the use of automobiles in center city areas. Still other cities, such as San Diego, are well advanced toward full implementation of gasoline vapor recovery regulations. In areas where employer mass transit incentive regulations are in effect, numerous large industries have submitted information describing the company's plans for reducing single occupancy auto commuter trips by their employees.

In those cases in which there has not been timely compliance with the transportation control plan measures, the Agency has had to take some type of enforcement action. The initial action after the Agency sends out a notice of violation is to hold a conference with the notice recipients. In most cases this results in a plan and schedule for implementation agreeable to both parties. In New York City, for example, a conference between Federal, State, and city environmental protection agencies has resulted in positive initial responses from both the city and the State.

The Environmental Protection Agency's recent enforcement actions have focused on two oxidant control strategies, motor vehicle inspection/maintenance programs and gasoline storage vapor recovery regulations. Several notices of violation, pursuant to Section 113 of the Clean Air Act, have been sent to various areas whose control plans include inspection/maintenance programs. The Agency will be meeting with affected areas to determine reasons for non-compliance and ways to ensure that full implementation of the program will proceed.

Similar notices of violation, as well as letters (pursuant to Section 114 of the Clean Air Act) requesting information on efforts to comply with control strategies, have been sent to several large companies regarding methods for compliance with vapor recovery regulations.

Other "114 letters" have been sent regarding employer incentive regulations, ship and barge emissions, on-street parking, and general lack of transportation control plan implementation.

AIR RESEARCH AND DEVELOPMENT

Mr. BOLAND. On page A–45, research and development, this reflects a decrease of $7,985,000 because of large-scale investments made during fiscal year 1975.

Do not numerous new areas need to be addressed in order to provide the basis for criteria and standards setting? In the problem of sulfates, on which reliable information is still lacking, was this not a reason for granting a further extension of auto emission control deadlines?

Mr. STRELOW. Yes.

Mr. BOLAND. Do not standards for several other air pollutants, such as metals in the environment, for example, remain to be established to provide a more comprehensive picture of the ambient air quality of a given region, and is not much R. & D. effort still necessary to provide the necessary data base for this program?

The question is, why is it being reduced by $8 million?

Dr. TALLEY. The request for research and development for the air programs should be considered in conjunction with the money for the energy research. Since there is a close tie between those two programs, the additional dollars coming to us with energy have or will allow us to accelerate and continue programs that are of interest to the air program. The $8 million decline does have to do with two of the three major type of scrubber operations that will complete their very large capital funding during fiscal year 1975. The third has been done with previous year money.

Mr. QUARLES. Mr. Chairman, as we enter this area of research, I think it is appropriate to make a general comment and call a topic to your attention and the attention of the committee on the entire research program of the Agency.

The total research program request of $162 million is substantially the same as the research program has been for the last 2 years, for the moment not including the research program for energy which is kept separate.

The research program within EPA is essentially at the same level, both in funding and in personnel, as it was when EPA was created in 1970. That is a rather stunning fact.

The rest of the Agency has grown dramatically as new programs have been established, but we have constantly been under pressure to provide money and people to meet these bursting requirements on the programmatic side, such as transportation control plans or all the rest that we have been discussing. This has caused us to have to constantly whittle away at the support for research in relationship to the needs. I think the type of questions you are beginning to ask lead right into that. I just thought it would be helpful to have that brought into perspective.

Mr. BOLAND. What did you request OMB for research and development in air?

Dr. TALLEY. We requested an increase of 25 positions and level funding.

CRITERIA APPLIED ON EXTRAMURAL PROJECTS

Mr. BOLAND. What are the criteria that EPA applies when it selects an R. & D. program in air pollution control?

Dr. TALLEY. Do you mean a particular extramural contract or grant?

Mr. BOLAND. The criteria that are actually applied when you select an R. & D. program contract.

Dr. TALLEY. We tend to try to find the best source, whether the tool we use is a contract or a grant. If a contract, we advertise requests for proposals in the Commerce Business Daily.

AVOIDING DUPLICATION

Mr. BOLAND. Do you also get a look at research and development programs which are being conducted in the private sector so that there is a possibility of saving money as a result of avoiding duplication, where you can get the same information from them or they can get it from you?

Dr. TALLEY. Yes and only in the private sector but also in the work performed by other Federal agencies in the environmental area. As I recall in the OMB special analysis, I think we will be spending something like 20 percent of the total Federal dollars spent on environmental research. I believe that that total Federal figure is dwarfed by that of industry and the private sector, universities and the like. It behooves us to know what is going on in the private sector as well as our own shop.

Mr. SHIPLEY. How about the National Science Foundation? Are you aware of any advances they are making or have made in this particular area?

Dr. TALLEY. Not only through formal arrangements, sitting on joint committees and the informal working relationships that our scientists have with the people funded by NSF, but we also go shares on specific research.

Mr. SHIPLEY. In other words, you have a close association. You know what is going on.

Dr. TALLEY. Close and trying to get closer.

R. & D. PRIORITIES

Mr. BOLAND. Your legend on research and development embraced a number of R. & D. programs. Can you indicate which programs EPA considers of the greatest importance?

Dr. TALLEY. Those that provide the basis for the standards setting authority, the ones relating to the human health impact of various pollutants, air, water and the other media, as well as our programs on control technology allowing us to be certain that the regulations to be

promulgated are feasible and that the technology exists to carry out the mandates of the agency.

Mr. BOLAND. What about the importance of EPA research and development which is used to achieve short-range benefits, and also R. & D. which has long-range application?

Dr. TALLEY. There are all manners and ways in which you can cut up the R. & D. pie. I prefer to speak of it as problem solving, problem definition research. We are a support arm of the agency. We support the program office, air, water, pesticides, and the like. In that we tend to solve the problems as they define them.

We also have the obligation to look further ahead, look years ahead, and try to anticipate problems that the agency is going to encounter, not only those associated with a particular media but those that cut across it. We are skipping out of the air area, but one area that is of immediate importance is in terms of our ability to detect contaminates in the water. It looks as though our ability to analyze has outstripped our ability to interpret the importance of these findings. In future years this is going to be even more important.

SCIENTIFIC ACTIVITIES OVERSEAS

Mr. BOLAND. What about the undertakings of other countries with respect to R. & D. on air processes? Do we have cooperative agreements with countries that are engaged in this kind of R. & D.?

Dr. TALLEY. We do. We have one particularly advantageous program involving Public Law 480, the scientific activities overseas, in which countries with quite similar problems are able to do research using dollars at no cost to the American taxpayer. Not only do the results benefit their nation but also ours.

Mr. SHIPLEY. Will the chairman yield?

Mr. BOLAND. Yes.

Mr. SHIPLEY. In relation to say Germany or Japan or some of the other countries, where are we today in cleaning up the environment—water, air, emission control and so on? How do we relate to some of those countries?

Dr. TALLEY. I don't know that we can come up with a broad index. For instance, Mr. Train discussed yesterday the itai-itai disease, cadmium poisoning in humans that the Japanese have suffered.

Mr. QUARLES. Mr. Shipley, I wonder if I might suggest you might want to repeat that question when Mr. Train is back. He really can respond to that question better than anyone else at the table. He is much more familiar with it.

R. & D. CONTRACT AWARDS LAST MONTH

Mr. BOLAND. Will you provide for the record a listing of the R. & D. contract awards and amounts for the last month?

Dr. TALLEY. I will be happy to. I would point out that during the month of April a total of 53 contracts totaling approximately $2.3 million were awarded and in addition there are contracts currently being processed for which we anticipate final award prior to the end of the fiscal year which total approximately $32.0 million.

[The information follows:]

Listing of contracts awarded for April 1975

Title	Amount
Detoxification of hazardous wastes	108, 070
Seminar session on "Physical-Chemical Wastewater Treatment"	4, 973
Seminar session on "Wastewater Filtration in Municipal Treat"	3, 491
Quick reaction engineering and technical services	30, 566
Quick response engineering and technical services	10, 000
Rapping reentrainment losses	131, 161
Wet scrubber study	130, 000
Disinfectant of ozone and ultra violet light-sml commun water	96, 000
Nonpersonal technical services	80, 000
Field sampling atmospheric emissions	7, 600
Development, fabrication, and installation, moisture monitor	27, 000
Predictive and pollution abatement model for mine drainage	82, 970
Quick reaction engineering and technical services	21, 330
Human pollutant body burdens of platimum and palladium	17, 030
Development of SO_2–SO_3 measurement capability	31, 394
Distribution of cadmium in human tissue	4, 384
Evaluation of linear materials to contain hazardous wastes	13, 893
Study of a modified hazardous material barrier in a two-knot curre	15, 000
Test and evaluate—St. Louis refuse firing demonstration	47, 540
System design and programming support	20, 000
Preparation of report on national benefits of air and water pollution	26, 904
Neurophysiologic and social behavioral responses	14, 861
Ground water pollution in the southeastern United States	66, 000
Quick response engineering and technical service	23, 880
Quick reaction engineering and technical services	21, 330
System for evaluating air pollution measurement methods	9, 782
Studies—Effective of Environment variables	35, 000
Quick reaction engineering and technical services	40, 838
Concentrating water sample for analysis	4, 786
Effect of non-ionizing electromagnetic	34, 000
Multielemental analysis of drinking water supplies	31, 124
Computerization of tech transfer mailing list	10, 000
Develop-sensitive biochemical and behavioral	50, 000
Evaluation of novel devices	63, 521
Nonpersonal technical services	40, 932
Quick response services for review and demon of measurement specifications	46, 810
Support for cat-ox demonstration	69, 800
Technical professional services	49, 800
Evaluation-efficiency of fuel additives in reducing emiss	126, 225
Develop selective hydrocarbon sampling system	7, 790
Test and evaluate—NIPSCO/Wellman/allied demonstration	79, 800
Scanning electron microscopic exam	74, 999
Quick reaction engineering and technical services	32, 000
Quick reaction engineering and technical services	4, 158
Investigation-teratologic and neuro effects	90, 000
Testing for chemical mutagenesis in drosophila	137, 200
Use of TUCC computer	26, 000
Field sample testing and analyzing reporting collected atmospheric emissions	13, 870
Lab water channel/towing tank	113, 881
SM400 derivative spectrometer	17, 665
Printer and mag tape system	10, 560
Purchase of office trailer	10, 875
Electrical wiring	1, 889

ENFORCEMENT PROGRAM RESOURCES BY LOCATION

Mr. BOLAND. Will you place in the record for the enforcement program a breakdown of costs and personnel resources for all media by headquarters and regions?

Mr. JOHNSON. Yes, sir.

[The information follows:]

Office of Enforcement Resources
(dollars in thousands)

		1975		1976		Increase or Decrease	
		Pos.	Amount	Pos.	Amount	Pos.	Amount
Air:							
Stationary Source....	Total	326	$8,544.7	333	$8,891.5	+7	+$346.8
	Hqrs.	(46)	(2,913.4)	(53)	(2,958.4)	(+7)	(+45.0)
	Regions	(280)	(5,631.3)	(280)	(5,933.1)	(...)	(+301.8)
Mobile Source.....	Total	78	2,205.2	111	3,128.5	+33	+923.3
	Hqrs.	(56)	(1,675.8)	(79)	(2,582.1)	(+23)	(+906.3)
	Regions	(22)	(529.4)	(32)	(546.4)	(+10)	(+17.0)
Water Quality:	Total	890	24,064.8	744	21,293.5	-146	-2,771.3
	*Hqrs.	(190)	(7,409.1)	(150)	(6,451.3)	(-40)	(-957.8)
	Regions	(700)	(16,655.7)	(594)	(14,842.2)	(-106)	(-1,813.5)
Water Supply:	Total	...	...	5	100.0	+5	+100.0
	Hqrs.	(...)	(...)	(5)	(100.0)	(+5)	(+100.0)
Pesticides:	Total	153	3,408.5	153	3,582.9	...	+174.4
	Hqrs.	(38)	(983.7)	(38)	(1,042.7)	...	(+59.0)
	Regions	(115)	(2,424.8)	(115)	(2,540.2)	...	(+115.4)
Noise:	Total	1	21.3	10	521.7	+9	+500.4
	Hqrs.	(1)	(21.3)	(10)	(521.7)	(+9)	(+500.4)
Program Management:	Total	40	1,222.7	35	1,135.4	-5	-87.3
	Hqrs.	(40)	(1,222.7)	(35)	(1,135.4)	(-5)	(-87.3)
Totals	Total	1,488	39,467.2	1,391	38,653.5	-97	-813.7
	Hqrs.	(371)	(14,226.0)	(370)	(14,791.6)	(-1)	(+565.6)
	Regions	(1,117)	(25,241.2)	(1,021)	(23,861.9)	(-96)	(-1,379.3)

* Includes National Field Investigation Center positions.

	1975		1976		Increase or Decrease	
	Pos.	Amount	Pos.	Amount	Pos.	Amount
Office of General Counsel Resources						
Total	109	2,637.0	134	3,169.7	+25	+532.7
Hqrs.	(72)	(1,680.7)	(77)	(1,799.7)	(+5)	(+119.0)
Field	(37)	(956.3)	(57)	(1,370.0)	(+20)	(+413.7)
Other						
Agency and Regional Support Costs:	...	9,566.1	...	11,338.8	...	+1,772.7
Total, Enforcement.....	1,597	51,670.3	1,525	53,162.0	-72	+1,491.7

AIR POLLUTION IN OTHER COUNTRIES

Mr. BAUCUS. Will the chairman yield for a question?

Mr. BOLAND. Yes.

Mr. BAUCUS. Does air pollution in other countries have any effects on this hemisphere?

Dr. TALLEY. Yes; and it is not only the particulate question. It is easier to give examples of the European nations, but we have grave suspicions that the climatological impacts of air pollution is global even though the sources may be in one country.

Mr. BAUCUS. Is this a real danger? Are we doing something about it with international agreements? Where are we here?

Dr. TALLEY. Yes; there is a real danger. There could be a real danger and we are trying to define the scope of the problem rather than taking hasty action that may have harmful side effects. For example, we are all aware of the acid rain in the eastern part of the United States where it is reaching levels now that is causing damage to paints and to metal surfaces. What hasn't been recognized is that acid rain has been a phenomenon in California for 2 years at least. No one knows where it is coming from since there is nothing but the Pacific to the west. So yes, it is an international problem.

Mr. ROUSH. Are we able to use the satellite program to monitor the atmosphere in any way? For example, are we able to use the Earth resources satellite?

Dr. TALLEY. Yes. We have a cooperative program with NASA not only to use the satellite but the U-2 instrument platforms to take broad surveys of the land and of the atmosphere.

WATER QUALITY

Mr. BOLAND. We will turn to Water Quality.

We will place in the record at this point pages WQ-1 through WQ-64.

[The pages follow:]

Water Quality

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$111,190,800	$144,521,900	+$33,331,100
Enforcement....	24,064,800	21,293,500	-2,771,300
Research and Development..	46,373,200	44,892,400	-1,480,800
Total.....	181,628,800	210,707,800	+29,079,000
End-of-Year Employment			
Abatement and Control.....	1,664	1,729	+65
Enforcement....	890	744	-146
Research and Development..	588	581	-7
Total.....	3,142	3,054	-88

Overview and Strategy

Evidence has been gathered to indicate that almost one stream or river mile out of every three is markedly polluted whether measured by oxygen demanding loads and bacteria count, nutrients such as nitrogen and phosphorus, other pollutants such as industrial compounds and suspended solids, or heavy metals and pesticides. These impacts result from the point source discharge of waste from industrial, commercial, agricultural, and municipal sources and the non-point source discharge and runoff from activities that cover a broad land area and are mostly diffuse in nature. These nonpoint sources include agricultural, silvicultural, mining, and construction activities and runoff from urban areas.

Activities have initially focused on the abatement of industrial and municipal point sources.

The relative magnitude of pollution is fairly evenly divided among industry, agriculture, and communities. The

biggest user of water is industry--over 200 billion gallons a day, two-thirds of which is used for cooling. It is estimated that over 30,000 applications will be received from this sector for discharge permits. The next biggest user of water is agriculture with a daily intake of about 130 billion gallons. The Nation's farm animals produce about as much waste as two billion people although only a portion of that ends up in our waterways. The largest agriculture discharge, however, is irrigation water often infused with pesticide and fertilizer residues and natural salts. Additional pollutant loads include an estimated four billion tons of sediment a year, most of it from farm and forest land and the drainage of acid and other contaminants from some 11 million acres of mined land. An estimated 6,500 discharge permit applications are expected from the agricultural sector. Communities use only about 30 billion gallons of water a day. However, only half of the Nation's population is served by sewage systems that provide adequate treatment. Over 30,000 discharge permit applications, including 10,000 to 15,000 from privately owned treatment works, are expected to be ultimately received from community waste treatment sources.

As a means for evaluating actual progress in improving the Nation's water quality, EPA conducted a National Water Quality Inventory in 1974. The Inventory Report focused on 22 major waterways, approximately 5,000 major point sources, and major problem areas in 56 States and territories. The Report shows that the pollutants that have received the most widespread controls, including oxygen demanding loads and bacteria, are improving. On the other hand, nitrogen and phosphorus, the nutrients most often associated with eutrophication, showed worsening trends.

Legislated Federal involvement in water pollution control began in 1948 in a very limited way. There were antecedent laws such as the Rivers and Harbors Act at the turn of the century whose water pollution control authorities were not utlized until 1970. The Congress, in a series of six amendments to the 1948 Federal Water Pollution Control Act from 1952 through 1970, gradually broadened the scope of Federal participation and assistance.

It was recognized that the pollution of the Nation's water was continuing to increase; that differences in the degree of emphasis among States were fostering economic and competitive inequities; that existing legal mechanisms

for abating discharges were often weak and insufficient; that costs of control required increased Federal funding and that uniform national norms were needed to protect the progress that had been achieved. In response, the Congress established as law the most comprehensive pollution control act ever enacted--the Federal Water Pollution Control Act Amendments of 1972, which significantly accelerated the Nation's pollution abatement program.

Federal and State governments have now been operating under the provisions of the Act for over two years. Top priority has been given to issuance of waste discharge permits to point sources, funding of publicly owned waste treatment works, and the compliance monitoring, technical assistance, and enforcement necessary to assure that permit conditions are met and that waste treatment plants are operated effectively. These activities are supported by monitoring and analyses to determine water quality dictated levels of control for critical stretches of water, promulgating guidelines and standards, setting national norms for comparable levels of control for all industrial discharges, and planning to assess and structure future program needs and solutions.

The Act basically encompasses a 10 year period from October 1972 to June 1983. Two important dates by which all point sources should have achieved a legislatively specified level of control occur in 1977 and 1983. By July 1, 1977, industries are to use the best practicable technology to control water pollution and the best available technology by July 1, 1983. Publicly owned waste treatment plants are required to provide a minimum of secondary treatment by July 1, 1977, and to apply the best practicable technology by July 1, 1983. Various interim steps occur on a continuing basis leading up to these dates. These include some of the activities previously described which are complemented by enforcement and research and development, and which are supplemented by other specifically focused programs such as lake restoration, economic studies, annual quality assessments, and management of nonpoint sources.

The costs which will be required to implement these controls levels are estimated in the 1974 Clean Water Report to Congress. It was estimated that about $12 billion would be required by industries to meet the 1977 goal of best practicable control technology. The total need to achieve the secondary treatment level for the municipal sector was estimated to be approximately $36 billion in the 1973

Municipal Needs Survey. This figure excludes needs for collection systems, storm water overflow, and correction of infiltration problems. Total needs including these problems were estimated at more than $60 billion.

The principal responsibility for conducting many of the tasks under the Act is assigned to the States. Local communities conduct several types of planning and construct treatment facilities. EPA's role is to coordinate nationally all the many and various aspects of the Act, overseeing their implementation, and where a State is unable to act, to carry out the activity. Additionally, EPA performs those activities which are singularly assigned to it under the law. The magnitude of the task demands that a continuing cooperation exist among all levels of government as each conducts its appropriate role.

Because of the long term phased nature of the Act, many activities are proceeding in a sequenced fashion. Top priority has been given to research and development efforts concentrating on the technological and informational needs related to the 1983 objective. Areawide and basin planning are also oriented toward this date. As permits are issued and their requirements come into effect, enforcement activities to assure compliance with these terms will accelerate. Much of the preparatory activity such as planning and permits related to the achievement of the 1977 goal have been completed. Under a continuing cycle, efforts leading to the second round of permit issuance are commencing. These include stream analyses of water quality, development of water quality based pollutant reduction where needed, and revised criteria. Research studies lead directly into revised criteria by providing more complete data and better values.

The great bulk of Federal environmental funding is allocated to the water program. These Federal funds are supplemented by sizeable amounts of State and local monies. This funding level reflects the major investment in publicly owned facilities that must be constructed to abate a principal source of water pollution--the discharge from municipal sewerage facilities.

The investment in municipal facilities is supported by Federal and State review of grant applications for cost effectiveness and compliance with the various requirements of the law; by an operations and maintenance program to

assure that the facility operates at its capability; and by assistance in the training of operators. Research and development projects examine more effective and economical technologies in an effort to reduce the total cost.

Initial studies and efforts to develop the frame work for managing nonpoint source pollution are being initiated. As point sources are increasingly abated, nonpoint pollution will become an ever larger factor.

Technological research will assist in formulating effluent standards for industrial discharges. Existing effluent guidelines need to be reviewed and revised so that they can be successfully utilized in the second round of permit issuance which will occur in several years.

Summary of Increases and Decreases

1975 Water Quality Program.....	$181,628,800
Abatement and Control.....	+33,331,100
Net increase results from including areawide planning as budget authority partially offset by the reprogramming of resources.	
Enforcement.....	-2,771,300
Reduction in manpower from the permit program due to shift from permit issuance to compliance monitoring and enforcement and a decrease in funds resulting from the termination of the General Point Source File (GPSF).	
Research and Development.....	-1,480,800
Net reduction results from a "one-time" 1975 congressional increase of $5.0 million for municipal control technology, partially offset by increases for water quality health effects and for accelerated research in non-point source management.	
1976 Water Quality Program Request.....	210,707,800

Water Quality
Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control			
Ambient Trend Monitoring...	$6,204.9	$5,167.8	-$1,037.1
Technical Assistance and Planning.....	22,651.7	70,878.0	+48,226.3
Academic Training.....	2,770.0	1,870.0	-900.0
Control Agency Support.....	45,664.3	34,375.0	-11,289.3
Municipal Source Control...	17,946.4	18,305.0	+358.6
Industrial Source Control..	8,986.9	6,999.2	-1,987.7
Nonpoint Source Control....	1,617.9	1,606.7	-11.2
Ocean Disposal and Spill Prevention.....	5,348.7	5,320.2	-28.5
Subtotal.....	111,190.8	144,521.9	+33,331.1
Enforcement			
Water Quality Enforcement..	24,064.8	21,293.5	-2,771.3
Research and Development			
Processes and Effects.....	18,779.7	19,790.5	+1,010.8
Control Technology.....	27,593.5	25,101.9	-2,491.6
Subtotal.....	46,373.2	44,892.4	-1,480.8
Total.....	181,628.8	210,707.8	+29,079.0
End-of-Year Employment			
Abatement and Control			
Ambient Trend Monitoring...	248	190	-58
Technical Assistance and Planning.....	506	527	+21
Academic Training.....	...	...	...
Control Agency Support.....	...	...	...
Municipal Source Control...	681	791	+110
Industrial Source Control..	46	45	-1
Nonpoint Source Control....	28	27	-1
Ocean Disposal and Spill Prevention.....	155	149	-6
Total	1,664	1,729	+65

	1975	1976	Increase or Decrease
Enforcement			
Water Quality Enforcement.....	890	744	-146
Research and Development			
Processes and Effects.....	327	327	...
Control Technology.....	261	254	-7
Subtotal.....	588	581	-7
Total.....	3,142	3,054	-88

Water Quality

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Ambient Trend Monitoring.....	$6,204,900	$5,167,800	-$1,037,100
Technical Assistance & Planning..	22,651,700	70,878,000	+48,226,300
Academic Training.	2,770,000	1,870,000	-900,000
Control Agency Support.....	45,664,300	34,375,000	-11,289,300
Municipal Source Control.....	17,946,400	18,305,000	+358,600
Industrial Source Control.....	8,986,900	6,999,200	-1,987,700
Nonpoint Source Control.....	1,617,900	1,606,700	-11,200
Ocean Disposal and Spill Prevention.....	5,348,700	5,320,200	-28,500
Total.....	111,190,800	144,521,900	+33,331,100
Contract Authority			
Areawide Waste Treatment Management Grants:			
Liquidation of Contract Authority.....	26,000,000	65,000,000	+39,000,000
Contract Authority.....	150,000,000	...	-150,000,000
End-of-Year Employment			
Ambient Trend Monitoring.....	248	190	-58
Technical Assistance & Planning..	506	527	+21
Academic Training.	...	...	...
Control Agency Support.....	...	...	...
Municipal Source Control.....	681	791	+110

	1975	1976	Increase or Decrease
End-of-Year Employment Continued			
Industrial Source Control.....	46	45	-1
Nonpoint Source Control.....	28	27	-1
Ocean Disposal and Spill Prevention.....	155	149	-6
Total.....	1,664	1,729	+65

Note: 1976 funds for Technical Assistance and Planning include $53,000,000 in budget authority for Areawide Waste Treatment Management Planning Grants, formerly funded under contract authority.

Purpose

The water abatement and control program encompasses those activities carried out by EPA to implement the Federal Water Pollution Control Act Amendments of 1972, with the exception of activities related directly to research and development and to enforcement, which are covered under separate appropriations.

The objective of abatement and control programs is primarily to assist State and local agencies in abating and controlling water pollution by providing management, technical, and resource assistance and through disseminating guidelines and standards. These guidelines set methods and procedures and levels of control for sources of pollution. Water quality criteria and standards are applied to the receiving waters and are subsequently reflected in the level of control placed on the source. Management assistance is provided in developing regional planning agencies, improving municipal waste control management, and in monitoring and reporting on ambient water quality and changes in quality. Technical assistance includes

general assistance on controlling persistent and complex pollution problems as well as specific response assistance for spills or other pollution emergencies.

Because a primary responsibility for the control of pollution lies with the States, most of EPA's abatement and control efforts are oriented toward support of State and local efforts. States are responsible for detailed planning, monitoring, and enforcement efforts, as well as establishing the priorities for commitment of Federal funds for the construction of sewage treatment plants.

Federal funds support planning at the State level. Additional grants support development and operation of State water pollution control agencies, which include the functions of construction grants review, permits, monitoring, and other implementation measures. States are encouraged to undertake the issuance of industrial and municipal permits and conduct the enforcement program to ensure compliance with permits.

EPA monitoring and surveillance activities are coordinated with State and other Federal efforts and include ambient water quality monitoring, collection and dissemination of information and water quality data, and compliance monitoring of specific types of pollution sources.

Technical assistance and information is provided to assist in applying technology, developing standards, and instituting effective programs and source management. A major program thrust involves the development and establishment of industrial effluent (point source) guidelines on best practicable and available technologies, effluent and pretreatment standards, and regulations for all industrial categories. Assistance and technical development efforts will continue on nonpoint sources that could lead to eventual development of a national control program. A spill prevention program focuses on developing and maintaining regional and State contingency plans to mitigate the effects of pollutant spills.

EPA provides or supports training to improve the skills of State and local water pollution control personnel as well as to increase the availability of water pollution control manpower. Skills which are addressed range from plant operators to plant designers and managers. Also, under this program, EPA assists other Federal agencies to bring their facilities

into conformance with prevailing pollution standards and helps to ensure that the programs, projects and other activities of Federal agencies produce a minimum water pollution impact.

An immediate practical objective of this training and assistance is to assure compliance, by a maximum number of treatment authorities, with discharge permit conditions established under the National Pollutant Discharge Elimination System. An equally important objective, for municipal wastewater treatment authorities, is to assure the cost effective operation and maintenance of treatment works built with Federal construction grant funds.

1975 Accomplishments

Major accomplishments or outputs in 1975 include:

- All States in possession of fully approved standards for all of their water;
- Approval of 86 areawide planning agency designations;
- Full implementation of the Oil Pollution Prevention Regulation;
- Final regulations for 28 industrial categories and final pretreatment regulation for some existing sources;
- Development of guidelines and regulations with respect to State planning efforts, under Section 208;
- Full implementation of 10 regional nonpoint source pilot projects;
- Issuance of all major and virtually all minor municipal permits in 1975;
- Submission of Section 305(a) Water Quality Inventory to Congress;
- Revised regulations relating to the control of sewage from vessels and the approval of no discharge areas;
- Regulation pertaining to placement of dredged or fill material;

- Establishment of 50 State programs to assure the cost effective operation and maintenance of municipal wastewater treatment works constructed with Federal funds, and to assure compliance by all municipal treatment works with NPDES permit requirements; and

- Initiation of a clean lake program to evaluate lake restoration technology.

1976 Plan

Some primary objectives for 1976 include:

- Completion of plans for all navigable waters under Section 303(e) to provide the basis for examining the appropriate levels of control for point and nonpoint sources within the basin;

- Development of areawide plans under Section 208 in 66 designated areas;

- Development of guidelines for the issuance of discharge permits specifying effluent limitations to industries, and guidelines representing best practicable and best available technology for various industries;

- Approval of Federal grants for the construction of municipal sewage treatment works to enable them to achieve required effluent levels;

- Study of the nature and extent of nonpoint sources of pollution; and

- Assessment of areas in which water pollution is most serious.

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Water Quality

Abatement and Control

Ambient Trend Monitoring

	1975	1976	Change
Ambient trend monitoring.....	$6,204,900	$5,167,800	-$1,037,100

The water quality monitoring program provides for the collection, processing, and analysis of water quality and water management data to implement the Federal Water Pollution Control Act Amendments of 1972. The main analytical tasks are to determine water quality, to measure changes in this quality, and to relate these changes to policy alternatives. The main data processing activities are to maintain water quality data files to support policy analyses and permit issuance, and to maintain operational data files in order to manage programs such as permit issuance and permit enforcement. The main data collection programs are for water management data (largely for the permit program), for the National Water Quality Surveillance System, for State monitoring programs, and for compliance and enforcement programs.

1975 Program

The ambient trend monitoring subactivity includes monitoring programs, data processing activities and analyses. For 1975, the monitoring programs will focus on the completion of selected waste load allocations; compliance and effluent monitoring to determine compliance with permit effluent conditions and to characterize waste discharges; collection of paired station (upstream and downstream from pollution source) data for the National Water Quality Surveillance System and the determination of cause and effect relationships on water quality; assistance in the development of State monitoring strategies; and the systems design of the groundwater portion of the National Water Quality Surveillance System.

Data processing activities will be directed toward ensuring the quality and completeness of data in the General Point Source File; operation and maintenance of the General Point Source File, the State Program Reporting System and

the Water Quality File and the training assistance of users; and the establishment of management procedures so that the data processed reflects monitoring priorities and so that data quality and availability are enhanced.

Analysis efforts in 1975 will focus on analysis of State Section 305(b) Water Quality Inventory submissions and completion of the National Water Quality Inventory under Section 305(a); analysis of water quality trends through paired station data obtained through the National Water Quality Surveillance System; development of a list of municipal permit nonfilers; and analysis of the impact of effluent guidelines on water quality.

1975 Accomplishments

- Establish a management program for the Water Quality File;

- Regional analyses of State Water Quality Inventories;

- Final effluent guideline for residual category of dischargers;

- Analysis of implications of EPA's municipal construction grant program, using data merged together from separate municipal data files;

- Pilot laboratory quality evaluation projects (Region I will evaluate quality control procedures for its States);

- Model State monitoring program will be updated to include priorities and small States;

- Guidelines on regional/State monitoring relationships;

- Agreement with each State on monitoring strategies to ensure reorientation of State monitoring programs to be consistent with the Federal Water Pollution Control Act, as amended;

- Collection of paired station data for National Water Quality Surveillance System (NWQSS), systems design of groundwater section of NWQSS analysis of paired station data for national overview section of Section 305(b) Water Quality Inventory, and conduct

of intensive surveys between selected pairs to determine cause and effect relationships (pilot projects); and

- Submission of Section 305(a) Water Quality Inventory to Congress.

1976 Plan

The ambient trend monitoring program will feature a reorientation of emphasis from 1975 to 1976 that will be consistent with the Agency shift from a permit issuance program to a permit compliance program. Thus, monitoring and analysis for permit issuance will be replaced by monitoring and analysis for permit compliance and for evaluation of the ambient impact of water pollution control programs. By 1976, a program for the management of EPA ambient water quality data will have been established and file cleanup and control procedures for input data will be implemented.

Purpose of Decrease

The decrease results from the termination of the development of a computerized inventory of point source dischargers known as the General Point Source File (GPSF). The important management needs that GPSF would have met will be provided by other, less expensive, data systems. Thus, our information needs will not be seriously hurt by this decision, and we will be able to redistribute the resulting personnel savings to higher priority agency programs. Other monitoring resources have also been redirected to higher priority programs.

Water Quality

Abatement and Control

Technical Assistance and Planning

	1975	1976	Change
Technical assistance and planning.....	$22,651,700	$70,878,000	+$48,226,300

This area includes funds for water quality planning, technical information, Federal activities, and standards and regulations development.

Water quality planning.....	($9,495,800)	($61,112,400)	(+$51,616,600)

Three major planning activities are conducted under the Act. These are (1) basin water quality management plans prepared by the States, covering all interstate waters; (2) areawide waste treatment management plans to develop a comprehensive control strategy; and (3) facilities plans which are the first step in the construction of municipal waste treatment facilities.

Basin planning activities conducted by a State or municipal control agencies are funded by EPA under Sec. 106 of the Act, areawide planning under Sec. 208, and sewage treatment facilities planning under the construction grants authority.

Basin plans provide for collecting water quality and waste discharge data; establishing the amount of pollutant removal required to achieve water quality standards and, as necessary, setting pollutant removal targets for major sources; providing the data base for the annual water quality assessment and projection report; developing the framework for assessing the appropriate methods and procedures for nonpoint sources management; and developing a mechanism for alleviating the effects of residual solid waste disposal.

Facilities plans evaluate alternative waste management techniques prior to the selection of a facility design. An essential element in this planning is the incorporation of cost effectiveness consideration.

Funds are provided under this subactivity for Great Lakes demonstration projects under Section 108 of the Act. These projects demonstrate various management techniques to control and abate pollution in the Great Lakes.

Through its water quality planning efforts, EPA provides assistance in the development of plans, provides technical support in the preparation and analyses of stream waste load analyses, and reviews and approves plans as they are completed. In addition, EPA develops and disseminates regulations and guidelines to assist in these various planning activities.

1975 Program

Planning activity in 1975 focuses on development of guidelines and regulations to assist State planning efforts in the development of areawide plans under Section 208 and in the implementation of nonpoint source control. Assistance is also being provided to the States in review and approval of basin plans. In addition, review and assistance is provided on facilities plans developed by local communities. Finally, funding in support of Great Lakes demonstration projects is being continued.

1975 Accomplishments

1975 planned accomplishments include:

- Development of guidelines and regulations with respect to States planning efforts under Section 208;
- Review of 400 facilities plans;
- Review of approximately 600 basin plans and approval of 300; and
- Approval of 100-130 areawide planning agency designations.

1976 Plan

Water quality planning in 1976 will feature a build-up in areawide planning activities as additional areas are designated and planning activities commence. The initial phase of basin planning under Section 303(e) will have been completed and resources will be directed to support develop-

ment of areawide plans. Some of these resources will also be directed to support facilities plans review in areas where this workload is also expected to increase substantially.

An extension of the Areawide Waste Treatment Management Planning program is planned for 1976 at a reduced funding level in order to extend Section 208 areawide planning to an additional 66 designated urban areas. This will provide for the development of areawide plans for an additional 20 percent of all metropolitan areas and will initiate statewide Section 208 planning for nonpoint sources in nonurban areas. 1976 will mark the beginning of a major effort to attack the problem of nonpoint source pollution.

Purpose of Increase

The apparent increase is due to the shift in funding of Section 208 Areawide Waste Treatment Management Planning Grants from contract authority to budget authority. In actuality, the funds available to fund water planning activities in 1976 will be substantially reduced. This results from a "one-time" 1975 congressional increase of $1.0 million for nonpoint source control to be conducted under areawide planning activities.

	1975	1976	Change
Technical information and assistance....	($10,316,600)	($6,933,900)	(-$3,382,700)

EPA provides technical guidance, assistance and information to States, other Federal agencies, and local agencies to assist with the development of water pollution control programs. These activities include assisting States in the preparation of their annual plans for the prevention, reducing, and elimination of water pollution; providing guidance on the setting of standards; developing uniform laws and international agreements for controlling border pollution; disseminating technical information concerning scientific and engineering advances; and providing technical consultations, as required. Also included under this subactivity is: an assessment of the status of pollution in the Nation's estuaries and preparation of a report to Congress on the assessment; identification and designation of priority for removal and removal of in-place toxic pollutants in harbors and waterways; development and publication of quality criteria for water; development and publication of lake restorative methods and procedures; promulgation of a regulation to control aquaculture; and

promulgation of a regulation to control the placement of dredged or fill material. Because water quality criteria provide the technical basis for many Agency programs and regulations, major emphasis has been placed on their development. Finally, funding is also provided under Section 104(h) of the Act to develop the most environmentally sound and cost effective methods for the restoration of lakes.

1975 Program

Technical information and assistance will emphasize preparatory work on evaluating and revising the triannual report on the Nation's estuaries and publishing several regulations on aquaculture projects and vessel wastes. A clean lakes program will be initiated to evaluate methods and procedures for the cost effective restoration of lakes.

1975 Accomplishments

Planned outputs for 1975 include:

- Develop quality criteria for water, based on the latest scientific information;
- Conduct a symposium on water quality integrity factors;
- Conduct a symposium workshop on the status of the Nation's estuaries and complete the report to Congress;
- Publish the proposed regulation relating to the control of sewage from vessels and the approval of no discharge areas;
- Publish a regulation pertaining to aquacultural projects;
- Propose a regulation pertaining to placement of dredged or fill material;
- Complete the report assessing current knowledge about in-place toxic pollutants in harbors and waterways and develop a method of assigning priorities for the removal of the in-place toxicants; and
- Initiate 8 to 10 clean lakes projects.

1976 Plan

Activities for 1976 will include:

- Completion and publication of a report on water quality integrity factors;

- Completion of a documentary film on the status of estuaries, publication of a regulation on control of sewage from vessels, approval of no discharge areas, and of a regulation on placement of dredged or fill material;

- Continuation of water quality criteria development in concert with latest scientific information;

- Issuance of pollution discharge permits for approved aquaculture projects; and

- Investigation of harbors and waterways that are of critical importance and which require additional study to provide the basis for a decision for the removal of in-place pollutants.

Purpose of Decrease

The decrease results from a "one-time" 1975 congressional increase of $4.0 million to initiate a clean lakes program.

	1975	1976	Change
Federal activities..	($2,282,600)	($2,365,500)	(+$82,900)

EPA supports other Federal agencies in ensuring that their activities produce a minimum water pollution effect and do not violate applicable standards. Executive Order 11752 requires that all installations owned or leased by the Federal Government comply with established Federal, State and local air and water pollution control standards. In addition, Executive Order 11514 requires that Federal agencies prepare environmental impact statements (EIS) on proposed actions. The statements are submitted to EPA for review and comment.

The water quality Federal activities program includes development of guidelines relating to the control of water pollution from Federal facilities, consultation and technical assistance to Federal agencies in development and

implementation of their water pollution control programs, preparation of EIS's on certain EPA actions having a significant impact on the environment, review of agencies' draft and final environmental impact statements to determine the impact on the water environment of proposed Federal projects or federally funded or licensed actions; and assistance to the agencies in improving the environmental protection measures associated with such actions.

EPA guidelines (and OMB circulars) provide specific instruction to Federal agencies in such matters as compliance planning, monitoring, exemptions, data needs, operator training and certification, and land management. Such activities have been instrumental in attaining several environmentally protective measures. For example, in regard to oil lease drilling/pipeline operations, EPA has successfully urged biological baseline studies in the Gulf of Mexico, limitation on multiple operations on single platforms, use of pipeline corridors to minimize biotic disturbance, and use of pipeline transport instead of barging of offshore production.

A recently initiated activity involves development of model municipal EIS's and specific stepwise procedures using established guidelines. The purpose is to guide the regions in preparing EIS's more efficiently and improving their quality.

1975 Program

Federal activities will highlight the development of a compliance strategy for Federal agencies, development of model environmental impact statement; review and comment on environmental impact statements from EPA and other Federal agencies; and review of water pollution abatement projects.

1975 Accomplishments

1975 planned accomplishments include:

- Develop good quality model environmental impact statements which document EIS preparation procedures for planning construction of municipal waste water treatment works;

- Review and comment on about 1,500 environmental impact statements from EPA and other Federal agencies;

- Contribute significantly to an EPA manual on preparation of impact statements for waste water treatment works and Title II Plans;

- Develop a water compliance strategy for Federal agencies, for incorporation into intermedia strategy required by Executive Order 11752;

- Develop evaluation procedures for use in prioritizing pollution abatement projects proposed for funding by Federal agencies; and

- Review nearly 500 water pollution abatement projects and recommend funding priorities to OMB.

1976 Plan

Planned activities for 1976 will include:

- Providing continued consultation to Federal agencies on Federal installation water pollution control and environmental matters;

- Reviewing NPDES water discharge permit applications from Federal facilities and recommending conditions of issuance;

- Reviewing and commenting on about 1,600 new environmental impact statements and emphasizing follow-up on implementation of projects covered by previously reviewed statements;

- Monitoring Federal facility compliance with applicable water quality standards and implementation schedules;

- Reviewing and evaluating Federal agency budget proposals for installing water pollution control measures and recommending funding priorities to OMB;

- Developing comprehensive water quality related program guidance to regional offices, Federal agencies, and States for implementing the requirements of Executive Order 11752; and

- Developing and refining water quality related guidance for the preparation and review of EPA and other Federal agency environmental impact statements.

Purpose of Increase

To support the full-year cost of the October 1974 pay raise.

	1975	1976	Change
Standards, regulations and guidelines....	($556,700)	($466,200)	(-$90,500)

EPA is responsible for revisions to intrastate water and interstate water quality standards. Standards establish the uses of water bodies, water quality criteria needed to protect these uses, and implementation plans detailing pollution control measures necessary to achieve these criteria. In addition, EPA continues to update all approved standards to include new information on toxic substances.

1975 Program

Activities for 1975 include development and publication of guidelines for the review and revision of water quality standards to guide the States in their standard revision efforts.

1975 Accomplishments

- Attainment by all States of approved water quality standards, and

- Assistance to all States in their revision and review of standards.

1976 Plan

The Act requires that all State water quality standards be reviewed and, if necessary, revised at least once every three years. The initial review was principally conducted in 1973 and completed in 1974. The second review of these standards will occur beginning in 1976 and will encompass introduction of revised water quality criteria values, an antidegradation policy, and inclusion of standards for wet weather flow.

Purpose of Decrease

The decrease reflects the reprogramming of four positions and associated funds to support increased construction grants activities.

Water Quality

Abatement and Control

Academic Training

	1975	1976	Change
Academic training..	$2,770,000	$1,870,000	-$900,000

Academic training is the focal point for all professional training and education activities under EPA's water program. It is through this academic training support that national professional manpower needs are addressed. Grants are awarded to institutions of higher education to meet a variety of legislated and required programs. Efforts in this area are divided into four primary categories: the professional training grant program, the graduate fellowship program, professional training curriculum activities, and undergraduate training grants.

1975 Program

The professional training grant program provides for training graduate level students in water related engineering and environmental sciences. In 1975, 645 graduate trainees will be supported at 54 institutions. Under the graduate fellowship program, one employee from each of the 53 State and territorial water pollution control agencies is selected by the director of that agency to spend one year in a water related graduate program. Upon completion of their training, the employees will return to their respective agencies. Professional training curriculum activities for 1975 include a joint project with the Ohio State Environmental Protection Agency to train high school teachers in monitoring techniques, the development of a curriculum for the land disposal of agricultural wastes, and the analysis of program objectives in the environmental training and engineering field. Undergraduate training grants will be provided for 11 institutions in water related engineering and environmental disciplines to support 104 students.

1976 Plan

In 1976, 425 graduate trainees will be supported at 32 institutions. Professional training curriculum activities will continue in 1976 at a reduced level. The funds will

be used to complete a curriculum development grant for land use disposal of agricultural wastes and for development of a plan for graduate training in water quality based on present legislation and water quality goals. Also, funding of a cooperative demonstration program with the Ohio State Environmental Protection Agency, five Ohio universities, the Institute for Environmental Education, and EPA will be continued.

Undergraduate training grants will be funded at the same level as in 1975 with funds being applied to curriculum development and demonstration projects for design and operation of municipal water/waste water facilities and for training to meet NPDES municipal permit requirements.

Purpose of Decrease

The decrease reflects the phased reduction in academic training.

Water Quality

Abatement and Control

Control Agency Support

	1975	1976	Change
Control agency support.....	$45,664,300	$34,375,000	-$11,289,300

The water control agency support program provides Federal support to State and interstate water pollution control agencies. In virtually every program activity (e.g.,permitting, monitoring, enforcement, and municipal facilities management), EPA and the States each perform functions which must be coordinated if they are to be effective. EPA develops the strategy for coordination of effort between EPA and the States as well as the sequencing of this effort from year to year. These broad guidelines are translated into operational program terms in the annual program prepared by each State.

Upon approval of the program, EPA funds each State agency to enable it to conduct its program activity. EPA also monitors State performance to ensure that the outputs specified in the program are accomplished.

1975 Program

In 1975, combined State and Federal funding for State programs totals about $130 million, of which $48.5 million is being provided by EPA. In accordance with the policies of the new federalism, we are pursuing a strategy of maximizing State roles. The States are being expected to accept responsibility for increasingly greater shares of the total water quality program, including compliance monitoring of NPDES permits, increased activities in support of the construction grants program, and greater responsibilities for ambient trend monitoring, planning, enforcement, technical support, and training.

1975 Accomplishments

1975 accomplishments and planned outputs include:

- Use of grant resources to support priority program areas including permits, municipal facilities management, compliance monitoring, and planning;

- Issuance of all major municipal permits and virtually all minor permits;

- Increased capacity of State compliance monitoring to strengthen the enforcement of tens of thousands of recently issued permits; and

- Increased capacity of State agencies to manage the construction of municipal facilities.

1976 Plan

In 1976, compliance monitoring and enforcement will receive increased emphasis while permitting activities will decline. The point source control phase of planning will be completed in most basins in 1975 and 1976 will see a beginning of nonpoint source planning. Additionally, a recent EPA draft study reveals a large resource gap in the management of the construction grant program. The study concludes that as many as 2,000 new positions are required to manage this multi-billion dollar program in an effective manner so as to avoid misuse of funds.

EPA manpower resources will be inadequate to undertake all required increased activities in areas of program emphasis. Thus, State programs must respond by shifting personnel to carry out priority activities. Resources will be moved from permitting to compliance monitoring and enforcement. Manpower will be shifted from point source planning to nonpoint source planning. However, additional staffing must be provided to increase State capacity to manage the construction grant program.

Purpose of Decrease

Although State agency grants will be decreased in 1976, support to the States for the 1975-1976 period will be maintained at a funding level of $40.0 million. In addition, $8.5 million in funds added by the Congress to our 1974 budget request has been made available in 1975.

Water Quality

Abatement and Control

Municipal Source Control

	1975	1976	Change
Municipal source control.....	$17,946,400	$18,305,000	+$358,600

The municipal source control program encompasses three interrelated activities: administration of the construction grants, municipal permits/operation and maintenance, and operator and direct training. All of these activities are conducted jointly with the States. All are coordinated and directed toward abating municipal wastewater discharges.

Construction grants administration....	(11,159,300)	(11,493,100)	(+333,800)

This activity encompasses administration of the construction grants program pursuant to EPA's Title II regulations. This includes the technical and administrative review of grant applications, amendments, and supporting materials; facilities plans; construction drawings and specifications; operation and maintenance manuals; user charge and industrial cost recovery systems; and other documents required by the regulations. It also includes awarding of grants, conduct of interim and final construction inspection and preparation of environmental impact statements or negative declarations. This activity does not include the construction grants audit activity which is covered under Agency Management and Support nor does it include any of the postconstruction activities of operation and maintenance inspections or municipal permit compliance assurance inspections and related tasks which are covered by the municipal permits operations and maintenance area. Also, this activity does not include that part of the staffing assigned to the technical review of facilities plans which is covered under technical assistance (water quality planning), nor that part of the staffing assigned to preparing environmental impact statements which is covered under the Agency Management and Support activity. These excluded activities, however, are integral and essential parts of the overall construction grants program.

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This activity covers only staffing costs: salaries, benefits, travel, and other personnel related costs. The grant funds are included in a separate appropriations account (Construction Grants) and there are no extramural activity costs funded through contracts. This activity is predominantly located in the regions where all of the grant making and associated administration of the construction grants program reside. The remainder of the activity resides in headquarters in the form of the Municipal Waste Water System Division which provides program policy and oversight.

1975 Program and Accomplishments

During 1975, it is estimated that this activity will administer 4,335 active projects carried over from 1974 (of which 1,560 will be completed during the year) and 3,560 new projects initiated during the year. More specifically, the activity will be managing the following estimated numbers of projects during 1975 as compared to 1974:

Types of Projects	1974	1975
New Step 1 projects.....	560	1,200
New Step 2 projects.....	100	1,100
New Step 3 projects (in preconstruction stage).....	470	1,260
Active Step 3 projects in construction phase.....	1,270	1,640
Active Section 8 projects in construction phase.....	1,935	1,135
Total.....	4,335	6,335

The new projects will result in estimated obligations of $3.5 billion.

As can be seen in the above table, the apparent 1975 workload increases 46 percent over that of 1974. The actual workload, however, will increase by about 119 percent because of the relatively greater manpower requirements of new Step 1, 2, and 3 projects which increase by 215 percent, as against active Step 3 and Section 8 projects which together, decrease slightly. Against this increased workload, the 1975 budget provides for an increase of nine positions and the Agency has reprogrammed 54 positions from other activities. In addition, the Agency intends to contract out a large portion of the preparation of environmental impact statements.

1976 Plan

In 1976, an additional increase in workload is expected as indicated by the following:

Type of Projects	1975	1976
New Step 1 projects.....	1,200	1,950
New Step 2 projects.....	1,100	1,800
New Step 3 projects (in preconstruction stage).....	1,260	1,950
Active Step 3 projects in construction stage.....	1,640	2,600
Active Section 8 projects in construction phase.....	1,135	235
Total.....	6,335	8,535

The Agency intends to significantly reorient its operating strategy for the program toward increased delegation of functions to the States. Beginning in 1975, the Agency will authorize and encourage delegation of virtually all functions to those States willing and capable of accepting them. Because the Agency cannot delegate its responsibilities for actual grant making, approval of various documents, and stewardship of grants, these delegations will involve State technical and administrative review of all required documents, with the State certifying as to their adequacy. The Agency will rely on these certifications as the basis for awarding grants, approval documents, and otherwise discharging responsibilities that cannot be delegated. In effect, EPA will be delegating (where States accept such delegation) virtually all of the workload except award of grants, approval of documents, preparation of environmental impact statements, and conduct of final construction inspection. To enable this strategy to work, it is believed that the States will insist on additional funding to cover the added administrative costs of the delegated functions. Accordingly, enactment of the legislation which would allow delegated States to use a small portion of their annual construction grant allotments to defray the administrative costs of delegated functions would be highly desirable.

Purpose of Increase

It is believed that only 15 States will be willing, capable, and ready in 1976 to fully assume and implement the delegations described above. This will reduce EPA's 1976 workload

(processing but not total workload) by approximately 30 percent. With a 1975 staffing level of 453 positions (inclusive of Agency reprogramming), a 1976 staffing increase of 107 positions is proposed. Also, it is planned to continue contracting for the preparation of environmental impact statements, with about 38 positions to be saved through this device.

	1975	1976	Change
Municipal permit/ operation and maintenance.....	($3,483,000)	($3,513,500)	(+$30,500)

This activity covers resources which are part of the National Pollution Discharge Elimination System (NPDES) program which is described under the water quality permit program activity under the Enforcement appropriation. These resources provide for the technical review of municipal permit applications and the development of municipal permit conditions. They also provide for compliance inspection of permitees when self-monitoring reports indicate that they are out of compliance and for technical assistance to noncomplying permitees where such assistance is deemed more appropriate than taking some form of enforcement action. Such compliance inspections also serve as operation and maintenance inspections of completed projects required under the construction grants program. All other resources devoted to the municipal permit program to cover administration and enforcement functions and the review of self-monitoring reports are assigned to the water quality permit program and are described in that activity.

1975 Program

During 1975, the program will be principally devoted to completing the issuance of original permits to 2,582 major municipal sources (by the middle of 1975) and to 15,100 minor municipal dischargers by the end of 1975. The reissuance of expired municipal permits and the revision of permits to accomodate changed conditions, new information, or industrial pretreatment requirements will also be accomplished. Finally the review of self-monitoring reports, the conduct of compliance inspections, and follow-up actions with respect to noncompliers will be carried out. Thus work will be shared with the States under delegation of the NPDES program. Fifteen

States have already been delegated responsibility for the program and an additional 15 States could gain the program by the end of 1975.

1975 Accomplishments

- Issue about 2,150 major permits (EPA and States);
- Reissue or revise up to 4,000 permits;
- Conduct approximately 35,000 compliance inspection (EPA and States);
- Issue about 12,200 minor permits (EPA and States); and
- Provide technical assistance to an estimated 140 noncomplying permitees.

1976 Program

During 1976, compliance inspection and follow-up technical assistance to correct noncompliance will be the principal activities of this program. It is estimated that approximately 4,700 permitees (1,100 major and 3,600 minor permitees) will have to be inspected. Technical assistance and nonenforcement follow-up actions to correct noncompliance will be required on at least one third of those inspected.

In addition, the 1976 program will continue to encompass the reissuance or revision of significant numbers of permits (an estimated 520 major and 5,000 minor permits). Revision to accommodate industrial pretreatment requirements and to accommodate effluent data not available in issuing the original conditional permits will comprise the bulk of this effort. Reissuance of permits that expire in 1976 will make up the remainder of the effort.

Purpose of Increase

To provide for the full-year cost of the October 1974 pay raise.

	1975	1976	Change
Operator and direct training.....	($3,304,100)	($3,298,400)	(-$5,700)

This activity encompasses the training and certification

of waste treatment plant operators, technicians, and managers and the training of other State and local personnel engaged in water pollution control. Operator training includes funds for development, demonstration grants, State training grants, certification, Section 109(b) training facilities, and administration. Included are grants for schools for operation and maintenance training and grants for laboratory programs for support of the National Pollution Discharge Elimination System (NPDES). Direct training includes the headquarters programs and the programs at the National Training Center at Cincinnati, Ohio.

1975 Program and Accomplishments

The program for 1975 features the development of State manpower and training self-sufficiency. Included are those projects that provide the State or municipality with instructional capability, specialized new methods, skills such as are required under the NPDES, new technology and innovative training projects, and development of certification criteria.

1976 Plan

The program for 1976 will follow along the 1975 outline with increased activity in developing State capability. The curriculum developed with 1975 grants will be widely distributed to any school that has facilities and the desire to promote the programs. State certification programs will be evaluated and testing criteria developed. Administrative costs and grants to minority schools will continue at the same funding level as 1975.

1976 funding for Section 104 (g) (1) in the amount of $650,000 for State and local operator training will stress the development of State manpower development and training capabilities through projects that provide States and municipalities with instructional capability, specialized new methods and skills required under NPDES, or new technology and innovative training programs and projects.

The National Training Center will provide increased emphasis in 1976 on the development of training materials for use by State agencies and training institutions.

Purpose of Decrease

The decrease is related to $200 thousand added by Congress in 1975 on a "one-time" basis, offset by the full-year cost of the October 1974 pay raise.

Water Quality

Abatement and Control

Industrial Source Control

	1975	1976	Change
Industrial source control.....	$8,986,900	$6,999,200	-$1,987,700

Industries discharge a broad range of pollutants into our Nation's waters. In the aggregate, they form the largest and most toxic of all concentrated sources of pollution. On the average, industry discharges about three times the amount of waste that is discharged by all the sewered private residences in the United States and the volume is increasing several times as fast as that of sanitary sewage.

The 1972 Amendments to the Federal Water Pollution Control Act provide for a vigorous attack on industrial water pollution, with deadlines for a number of specific control actions. Guiding the control program are two legislatively mandated goals: (1) existing industries discharging pollutants into the Nation's waters must use the best practicable water pollution control technology currently available by July 1, 1977, and (2) they must employ the best available technology by July 1, 1983.

EPA is publishing effluent limitations guidelines to define the best practicable and best available technologies for various industries. The development of the effluent limitations guidelines takes into account adjustments for several factors, including the cost of pollution control, the age of the industrial facility, the process used, and the environmental impact (other than water quality) of the controls. EPA is also identifying, where possible, pollution control measures for completely eliminating industrial discharges.

In addition, new sources of industrial pollution must use the best available demonstrated technology which is being defined by EPA in the form of standards of performance for various industries. Where practicable, EPA is requiring that there be no discharge of pollutants from new industrial facilities.

EPA is also promulgating pretreatment standards for new sources and proposing regulations on the application of effluent limitations for users of publicly owned treatment works which are subject to pretreatment standards under Section 307(b) of the Act.

1975 Program

Activity for 1975 will focus on the development of industrial waste water limitation guidelines and standards and revisions to them as necessary for meeting the 1977 and 1983 goals and new source requirements. A related activity in support of the NPDES program is to provide technical assistance and training for implementation of industrial standards. Updated and current information is also provided on process technology to control and abate industrially caused water pollution. In addition, a data base is being developed on industrial wasteuse, pollution loads, technology achievements, costs, and other information necessary to assess and correct industrial pollution problems. Finally, assistance will be provided to State water pollution control agencies, other Federal agencies, industry, and other groups in matters concerning industrial waste water discharges.

1975 Accomplishments

- Publication of final regulations for the 19 Group I, Phase II categories;

- Publication of final regulations for nine of the 19 Group II categories (remainder to be published by October 1975);

- Publication of final pretreatment regulations for existing sources for the Group I, Phase I and II categories;

- Publication of proposed pretreatment regulations for existing sources for nine of the 19 Group II categories (remainder to be published by October 1975); and

- Awarding of level of effort contracts for data gathering and evaluation (includes field verification and sampling)--data to be used in annual review of the guidelines.

1976 Plan

- Complete development of industrial waste water effluent limitations guidelines and standards for 1977 and 1983 and new source requirements;

- Development of and promulgation of proposed pre-treatment standards for existing sources for the 19 Group II industrial categories;

- Development of technical information as required resulting from the judicial review of effluent limitations guidelines and new source performance standards;

- Development and analysis of data to be used in the annual review of the effluent limitations guidelines and new source performance standards (the guidelines and standards must be revised every five years); and

- Provision of technical assistance to the Office of General Counsel, the regions, and the States on industrial waste water treatment technology and control.

Purpose of Decrease

The decrease results from a "one-time" 1975 congressional increase of $2,000,000 which is being used to support the promulgation of toxic effluent standards under Section 307 and to cover increasedcosts due to the revision and legal defense of existing effluent guidelines.

Water Quality

Abatement and Control

Nonpoint Source Control

	1975	1976	Change
Nonpoint source control.....	$1,617,900	$1,606,700	-$11,200

Nonpoint source pollution is a significant portion of the total water pollution load of the waters of the Nation. For the Nation as a whole, about one-third of water pollution is from nonpoint sources. Such sources include agricultural activities, silvicultural activities such as forestry and logging, mining, urban and rural runoff, construction activities, and salt water intrusion.

The immediate objectives of the nonpoint source control program are to direct, support, and coordinate the regional nonpoint source control pilot program; develop and issue cost effective technical guidelines and information on the best practicable control technologies; develop model State laws and regulations; coordinate point source and nonpoint source control activities; and coordinate programs of other Federal agencies to ensure the greatest reduction of nonpoint source pollution from Federal lands. It is planned for the program, presently in its infancy, to become a fully implemented special source program in 1977-1978. An integrated point/nonpoint source control program is necessary to reach the 1983 goals of the Federal Water Pollution Control Act, as amended.

The regional nonpoint source control pilot program is designed to conserve resources through regional projects directed to specific special source categories. The projects not only accomplish controls in limited areas for the specific source category, but also provide basic technical, legal, and institutional control information for use in control of the sources throughout the Nation. The pilot project information, together with that developed by research, will be published and widely distributed. In those cases where specific guidance is necessary, Section 304(e) documents will be developed and distributed as required by the Act.

An objective of the nonpoint source control program is to extend the point source permits to many sources that presently

must be treated as nonpoint sources. This generally involves the extension of permit requirements to small sources not covered in existing point source regulations. This program, presently in the development stage, is directed to the orderly progressive application of the permits to the smaller sources within available resources. Technical assistance is provided to Federal, State, and local agencies with emphasis on permitting and monitoring activities.

1975 Program

During 1975, a number of activities will be continued or initiated. Nonpoint source pilot projects will be fully implemented in all regions. A model State law to manage pollution from silvicultural activities will be developed as part of the continuing program to develop model State laws and regulations. Technical guidelines, information, and reports will also be issued relating to control technologies and cost effective techniques. In addition, coordination with other Federal agencies will be continued in the effort to influence current practices on Federal lands to reduce nonpoint source pollution.

1975 Accomplishments

- Full implementation of 10 regional pilot control projects on mining, irrigation return flows, ground water, silviculture, individual domestic systems, urban runoff, salt water intrusion, agriculture, and oil fields and natural brines;

- Completion of the 45 State Sediment Control Institutes;

- Development of a State model law to manage pollution from silvicultural activities and subsequent submission to the Council of State Governments;

- Development and issuance of five information reports and of one Section 304(e) guidance document;

- Participation in meetings and symposia with other Federal agencies to modify current practices on Federal lands to reduce nonpoint source pollution;

- Completion of statistical data and determination of resource requirements for extending animal waste permits; and

- Initiation of development of cost effective technical guidelines to define best practicable control technologies for mining and construction activities. Guidelines would be implemented by the States in the management of nonpoint source pollution.

1976 Plan

Implementation of pilot control projects in each of the regions will continue in 1976. The results from these projects will be used to assist in the development of specific Section 304(e) guidance. Cost effective technical guidelines will be developed for mining, construction, and agricultural nonpoint source wastes. In addition, two model laws will be completed for the States to adopt for the control of nonpoint source pollutants. Finally, the coordinating effort within other Federal agencies will be continued to promote installation of best practicable management technologies for the control of nonpoint source pollutants on Federal lands.

Purpose of Decrease

The decrease reflects the reprogramming of one position and associated funds to the administration of construction grants.

Water Quality

Abatement and Control

Ocean Disposal and Spill Prevention

	1975	1976	Change
Ocean disposal and spill prevention..	$5,348,700	$5,320,200	-$28,500

Since enactment of the Marine Protection, Research, and Sanctuaries Act of 1972 (PL 92-532), the previously uncontrolled practice of transporting and dumping wastes in ocean waters is now being regulated. The Ocean Disposal Permit Program was initiated in 1974. Since then, EPA has developed criteria for the evaluation of permit applications, prepared procedural regulations, identified some 110 ocean disposal sites, on an interim basis and issued over 80 permits.

Of the 110 dumpsites identified, 11 are now in active use for dumping of municipal and industrial wastes. Four of these are beyond the edge of the continental shelf. Site surveys are being conducted on four sites at present and additional surveys will be initiated in 1975.

The primary objective of the spill prevention program is to protect water quality through establishment of standards and regulations for toxic and hazardous materials, prevention of oil and other spills, and miniminzing the impact of spills on the environment. This authority is covered under Sections 307 (a) and 311.

Section 311 of the Federal Water Pollution Control Act, as amended, specifies a threefold approach to the control of spills: response, prevention, and enforcement. Essential to implementation of Section 311 is the promulgation of key regulations, development of the National Contingency Plan, establishment of spill response programs, and development of an aggressive spill prevention program. The spill response program is shared with the U.S. Coast Guard and jurisdictional lines between the agencies are drawn geographically between inland (including the Great Lakes) and coastal water. It is EPA's position that the discharger should take action to remove the spilled material; however, if the violator fails

to do so, cleanup will be undertaken by EPA and the discharger charged for the cost of removal. To provide efficient and coordinated response actions, national and regional contingency plans are required which delineate procedures, techniques (chemical uses), and responsibilities of the various Federal, State and local authorities.

The prevention program is also divided between EPA and the U.S. Coast Guard, in accordance with facility function, with EPA having responsibility for nontransportation related operations. Initially, the EPA program is being directed at repeat violators and major dischargers.

The enforcement aspect of the program serves as a deterrent to dischargers through assessment of the penalties provided for in the Act. For hazardous substances, the enforcement program will have greater significance because of the severe penalties that can be assessed for discharges of nonremovable hazardous substances. More aggressive field investigation will be required becaused hazardous substances spills are more likely to go undetected than oil.

EPA is also responsible for establishing and revising regulations, standards, and guidelines under Section 311 (hazardous substances) and Section 307 (a) (toxic substances). Lists of these substances must be proposed and standards and regulations proposed and promulgated within the time constraints imposed by Congress and court decisions.

Under Section 307 (a), each toxic material listed must be carefully justified by the preparation of criteria documentation, economic and technical feasibility studies, and development of a defensible statement of basis and purpose, including detailed studies of hydrodynamics, available treatment technology, analytical methodology, ambient water quality criteria, and justification of source categories. Public hearings must be held on all proposed standards.

A similar procedure is required under Section 311 (hazardous substances). While no public hearings are required by law, workshops and symposia are necessary. A list of 370 hazardous substances has been published in an Advance Notice of Proposed Rulemaking. Regulations must designate substances, harmful quantities, and rate of penalty for nonremovable substances. Continued international effort is required, especially with Canada, to

ensure compatability of our regulations with other countries.

1975 Program

In the ocean dumping permit program, the major effort will be directed toward the designation of ocean disposal sites and the preparation of environmental impact statements for each site. Efforts will also be made to develop better analytical procedures and to revise the existing criteria for permit application evaluation.

During 1975, the major efforts in the remainder of the program will be to initiate compliance inspections and enforcement actions, review spill prevention control and countermeasure plans, fully implement EPA's oil pollution prevention regulations, revise proposed standards for nine toxic materials, and develop methodologies for rates of penalty and harmful quantity regulation under Section 311. Also, development of draft regulations and definitions of small facilities liabilities will be a vital part of the program.

Accomplishments

Accomplishments and 1975 planned outputs include:

- Studies and designation of two ocean disposal sites;
- Public hearings and workshops to revise ocean disposal criteria;
- Processing of 50 permit applications;
- Full implementation of oil pollution prevention regulation;
- Completion of a draft regulation for preventing spills of hazardous substances from nontransportation related facilities;
- Completion of a major revision of the National Contingency Plan to incorporate removal actions for hazardous substances;
- Completion of a draft regulation for removal of hazardous substances;
- Revision of proposed standards on nine toxic materials;

- Re-proposal of new standards for toxic materials to support standards for proposed rulemaking;

- Introduction of evidence to support standards for proposed rulemaking;

- Publication of advanced notice for new list of toxic materials;

- Publication of final standards for nine listed toxic materials;

- Publication of Advance Notice of Proposed Rulemaking list of Section 311 hazardous substances; and

- Development of methodologies for rates of penalty and harmful quantity regulation, and publication of proposed regulations.

1976 Plan

In 1976, the ocean dumping permit program will continue dumpsite designation studies along with the review of permit applications and using new research data, will propose revised criteria for evaluating ocean dumping permit applications.

During 1976, it will be necessary to prepare evidence, propose standards, conduct public hearings and promulgate regulations for those hazardous substances identified in the Advance Notice published in 1975. For hazardous materials, publication of regulations identifying harmful quanities and rates of penalty will be required. Accomplishments are expected to include:

- Study and designation of six ocean disposal sites;

- Review and evaluate 50 ocean dumping permit applications;

- Proposed revisions of criteria;

- Designation of hazardous substances, harmful quantities, and rates of penalty for nonremoval substances regulations responding to Section 311;

- Proposed standards, public hearings, and promulgation of regulations on toxic substances on the proposed

list; and

- Continuation of international activities to insure compatability of regulations.

Purpose of Decrease

The decrease reflects the reprogramming of six positions and associated funds to Construction Grants.

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Water Quality

Abatement and Control

Areawide Waste Treatment Management Grants

	1975	1976	Change
Areawide waste treatment management grants:			
Liquidation of contract authority...	$26,000,000	$65,000,000	+$39,000,000
Contract authority	150,000,000	...	-150,000,000

The Act provides for the establishment of areawide waste treatment management and planning agencies under Section 208. Through Section 208, planning agencies are provided a unique opportunity to plan and manage a comprehensive program based on integrated planning and control over such activites as municipal and industrial waste water, storm and combined sewer runoff, nonpoint source pollutants, and land use as it relates to water quality. These agencies will develop comprehensive plans, examing nonstructural as well as structural alternatives, which will affect the investment of both public and private resources over an extended period of time. They are developed for both metropolitan and those other areas with critical water conditions and water quality control problems. The designated agencies, upon receipt of an acceptable grant application, receive grants for 100 percent of their eligible planning costs.

A management system is developed to carry out the objectives and requirements of the plans. This comprehensive management system in designated areas is expected to be the keystone of efforts for attaining the 1983 goals of the Act as it incorporates all the principal functions of water pollution control planning, construction, and regulation.

1975 Program

During 1975, the number of Agency designations is greatly increasing as States and local communities are able to coordinate and prepare the necessary documentation to permit

designations to be made. At the end of 1975, 100-130 designations will have been approved. This will provide for the development of areawide plans for about one-third of all metropolitan areas.

1975 Accomplishments

- Development of management plans by designated agencies; and

- Approved of 100-130 areawide planning agency designations.

1976 Plan

During 1976, the funding for Section 208 grants has been shifted from contract authority to budget authority, and is included in the water quality planning section discussed previously.

Purpose of Change

Funding for liquidation of contract authority will be increased to provide for increased outlays to cover the grant obligations made during 1974 and 1975. 1976 funding for new contract authority has been eliminated.

Water Quality

Enforcement

	1975	1976	Increase or Decrease
Budget Authority			
Water Quality Enforcement....	$24,064,800	$21,293,500	-$2,771,300
End-of-Year Employment			
Water Quality Enforcement....	890	744	-146

Purpose

The water quality enforcement program emphasizes the compliance monitoring, enforcement, and continuing issuance of National Pollutant Discharge Elimination System (NPDES) waste water discharge permits. Other activities include the enforcement actions necessary to achieve compliance with regulations on oil and hazardous material discharge, water supply, ocean dumping, and related requirements of the Act. Most water quality enforcement activities are conducted cooperatively with the States and maximum State assumption of these responsibilities is a primary goal.

The National Pollutant Discharge Elimination System permit program is part of the comprehensive effort initiated by the 1972 Amendments to reduce or eliminate point source pollution from industrial, municipal, commercial, and agricultural facilities. The Act prohibits discharge of pollutants to virtually all waters of the United States unless a permit is issued by EPA or an EPA-approved State program. The permit is the focal point of the tight regulatory system with precise and detailed abatement requirements, streamlined enforcement procedures, and heavy penalties for permit violation.

The permit is the mechanism for imposing on point source dischargers the uniform national effluent limitations and national performance standards which EPA is required to promulgate. These standards, set by the abatement and control function, establish the maximum amounts of various pollutants which can legally be discharged into a water body. If, at a given facility, the established national effluent limits will

not reduce pollution enough to meet the ambient water quality standards set by the State or EPA, the permit will impose stricter effluent limitations as necessary to meet the water quality standards. These more stringent effluent limits are set by the permit program in coordination with pollution load allocation activities covered under the abatement and control function.

Permits are issued on condition that their pollutant reductions be accomplished according to given time schedules. Compliance with the limitations and the schedules are assured by review of permittee self-monitoring reports, routine and case preparation facility inspections, conferences with permit violators, issuance of letters and administrative orders, and development and referral of cases to the Justice Department.

The primary objectives for 1976 are (1) to assure, in cooperation with the States, a high degree of compliance by the most significant dischargers with their compliance schedules and final effluent limitations; (2) to pursue full implementation of approved State programs and additional approvals to qualified States; (3) to achieve a high degree of compliance with other non-NPDES water enforcement program responsibilities; (4) to expedite issuance and modification of adjudicated, new source, and power plant permits; and (5) to complete issuance and assure compliance with all other NPDES permits.

1975 Program and Accomplishments

With the issuance of nearly all of the first round of permits in 1975, the first step in the NPDES water quality enforcement program will have been completed. Most significantly, all "major discharger", i.e., 6300 permits will have been issued.

The goal of turning over NPDES authority to all qualified States also is expected to continue to progress significantly this year. Approximately 11 new programs should be approved for a total of 30.

1975 saw the first significant results of the NPDES permit enforcement authorities. While we have found significant voluntary compliance with the permit requirements, we will have issued 800 administrative orders and referred 40 NPDES cases to U.S. Attorneys. These formal actions generally were preceded by informal compliance efforts including telephone calls, letters, and meetings. Most permit violations are being identified through review of a substantial number of

self-monitoring reports submitted by permittees.

Implementation of NEPA requirements related to new source permits has been initiated in 1975. This has involved principally the preparation of regulations and guidance for developing impact statements and negative declarations for new source permits in 1976.

Enforcement also began implementation of the Section 316(a) provision for appeal from the thermal effluent limits, holding 20 hearings. Thirty enforcement actions were initiated under Refuse Act and the Marine Protection, Research and Sanctuaries Act.

In addition to permit enforcement activities, we have maintained our continuing program with the Coast Guard and Justice Department in enforcements of oil spill prevention and abatement authorities resulting in approximately 700 referrals to the Coast Guard and 50 referrals to U.S. Attorneys for action on violations.

EPA has also taken enforcement action for violation of the Section 404 prohibition against disposal of dredged or fill material without a Corps of Engineers permit. We will have taken 20 such actions this year.

1976 Plan

The basic change in the water quality enforcement program is the significant increase in compliance monitoring and enforcement resulting from the issuance of a large number of discharge permits and the increased number of other water pollution control requirements now in effect. The primary EPA/State objective for 1976 will be to assure a high degree of compliance with NPDES permits by the most significant or "principal" industrial and municipal dischargers. Principal dischargers include "major dischargers" and any additional large facilities having high potential for violation of water quality standards or who are required to install substantial pollution abatement. Water enforcement resources that were previously dedicated to the enormous task of getting out the initial round of discharge permits will now, to a great extent, be dealing with permit compliance and enforcement. We feel that vigorous and effective enforcement of permit conditions must be established from the outset in order to maintain the integrity of the regulatory permit program. The program will concentrate compliance efforts on those dischargers who have

demonstrated or have high potential for significant violations of permit conditions.

During 1976, the water quality enforcement program will:

- Accelerate the development of all State permit programs and approve 10 additional State programs;

- Review all self-monitoring reports, facility compliance schedules and discharge monitoring reports, both for receipt and substantial compliance;

- In participation with States, undertake on-site facility inspections at principal dischargers to review violations identified in permittee self-monitoring reports, to identify and define permit violations not identified in reports;

- Follow-up on violations with letters, telephone calls, conferences, and administrative orders, as appropriate;

- Monitor and enforce appropriate compliance with oil spill prevention requirements; toxic, pre-treatment and marine sanitation standards; and aquaculture and sewage sludge disposal permits;

- Enforce ocean dumping regulations of the Marine Protection, Research and Sanctuaries Act of 1972, review Section 404 dredge spoil disposal site designations for possible disapproval, participate in Section 10 Refuse Act dredge spoil actions; and certify Section 8 applications for SBA loans for installation of pollution control equipment;

- Implement Section 504 of the Federal Water Pollution Control Act, as amended, which provides EPA with emergency power to bring suit where a pollution source presents an imminent and substantial danger to public health and welfare;

- Complete review and adjudication of approximately 100 Section 316 appeals dealing with thermal effluent requirements;

- Prepare approximately 250 cases for permit violation to be referred to the U.S. Attorney;

- In participation with the States, issue or reissue approximately 950 major and 10,000 minor permits. These will be issued to new or modified facilities, to dischargers which had not applied, had not been issued a permit, or whose permit had expired or required modification; and

- Implement National Environmental Policy Act requirements for new source discharge permits, including preparation of environmental impact statements and negative declarations.

Purpose of Decrease

Completion of the issuance of most initial permits and the increasing number of approved State programs will enable us to make a reduction of 146 positions and $2.8 million. It is expected that significantly less EPA technical support will be needed in 1976 for such tasks as developing permit conditions, reviewing State permit conditions, issuing permits, reviewing industry appeals from application of the effluent guidelines, assisting in State program development, participating in adjudicatory hearings, and supporting administrative and judicial enforcement actions.

Overall administrative support, including application receipt and files maintenance, compliance tracking, data systems support, program management, and public notice and program inquiry review and response, will be maintained during 1976 at approximately the same level as in 1975 since they both support the permitting and the compliance monitoring/ enforcement functions.

Water Quality

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and Effects.....	$18,779,700	$19,790,500	+$1,010,800
Control Technology....	27,593,500	25,101,900	- 2,491,600
Total.....	46,373,200	44,892,400	- 1,480,800
End-of-Year Employment			
Processes and Effects.....	327	327	...
Control Technology....	261	254	- 7
Total.....	588	581	- 7

Purpose

The role of research and development in EPA's water quality program is to provide the scientific information needed to support its standard setting and enforcement activities. To do this, a multifaceted research program has been established. The goals of this program include the development of inexpensive, efficient, and effective wastewater treatment technology for both municipalities and industries; useful and defensible monitoring methods; and criteria for clean, safe, ecologically stable water in various aquatic environments; and the establishment of strategies for control of pollution from spills of oil and hazardous materials and from farming, mining, and construction activities (nonpoint sources). An overall goal is to provide the scientific basis for economical and socially viable environmental management.

Water Quality

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects.....	$18,779,700	$19,790,500	+$1,010,800

This program includes: (1) the development of criteria for the safe treatment and disposal of wastewaters and sludges and the development of health related criteria for fresh and marine recreational waters; (2) research on the toxicological effects of water pollutants on aquatic organisms; (3) research on the movement, transformation, degradation, accumulation, and fate of water pollutants; and (4) the development of new and improved sampling and analytical methods and instrumentation for measuring water and effluent quality. The toxicological and fates research is directed toward development of water quality standards. The analytical methods and instrumentation development is directed toward providing new and improved techniques for water quality and effluent monitoring and surveillance of standards compliance.

The construction grant program calls for alternative waste treatment management techniques and systems to implement Section 201 of the Federal Water Pollution Control Act, as amended. One such technique is land disposal. However, many State agencies are reluctant to use land for the treatment and disposal of wastewater and sludge because of a lack of precise information on the health hazards associated with such a practice. Research on valid criteria for the safe treatment and disposal of wastewaters and sludges is, therefore, of high priority to EPA's Office of Water and Hazardous Materials.

Furthermore, it is a national goal that water be suitable for recreation by 1983, yet the data base available for development of recreational water quality standards is still deficient. Indeed, it is possible that current standards are too stringent, resulting in unnecessary closing of beaches, excessive chlorination costs, and discharge of chlorinated effluents which are known to be ecologically harmful. Recreational water quality criteria directly impact municipal and industrial effluent standards and ocean dumping regulations.

The importance of developing valid, health related recreational water quality criteria cannot be overemphasized since it affects the multibillion dollar water pollution regulatory program. There is little scientific basis for the currently used microbiological criteria for recreational waters. The National Academy of Sciences has found no basis on which to develop a new criteria. Yet much will be spent on treatment plants and their operation to meet surface water standards based on these old and inadequate criteria.

EPA is conducting research to provide data and information for the establishment of water quality criteria that will provide a sound scientific basis for setting legally defensible standards for public water supplies and industrial purposes. Studies are conducted to determine the effects of physical, chemical, biological, microbiological, pesticidal, and radiological pollutants on water use. In addition, to enable description of the interaction of these pollutants within total aquatic ecosystems, research is conducted to determine movement, transformation and ultimate fate of pollutants in fresh surface, ground, marine and large lake waters. This information is required in order to relate the concentration and form of pollutants to the size, character, composition, and location of their sources and to establish effective water quality standards, treatment, and control requirements. The analytical methods and instrumentation development program is designed to provide new and improved techniques for water quality and effluent monitoring and surveillance of standards compliance. There is also a need to have rapid methods for the detection and enumeration of pathogenic and indicator bacteria and chemicals in drinking, recreational, and other waters.

1975 Program

Efforts have been under way to determine the dispersion of pathogens and toxic chemicals in aerosols from conventional secondary wastewater treatment plants. In 1975, health effects work was expanded to include an epidemiological study on human populations associated with conventional wastewater treatment plants. In addition, studies were initiated to determine the transport and fate in air, water, and soil of pathogens and toxic chemicals produced by application of wastewater and sludge to the land.

The recreational water research program is conducting studies at two New York marine beaches, one "clean", the other relatively polluted, to relate quantitatively the

incidence of diseases among swimmers to various microbial indices of pollution.

Emphasis is being given to the study of the acute and chronic toxicological effects of metals, pesticides, and complex effluents on all life stages of aquatic organisms, and on the determination of the pathways of movement and behavior of these materials in multiphase systems. EPA is also developing increased capability to describe the eutrophication process, implement lake restoration techniques, and derive criteria for ocean dumping and ocean outfalls. Finally, work is being done on predictive mathematical models of the fate and effects of pollutants in streams, rivers, estuaries, subsurface water, and lakes.

1975 Accomplishments

- Developed preliminary information on asbestos (asbestiform minerals) types and concentrations in Lake Superior and devised interim procedures for determination of asbestos particle concentration in Duluth, Minnesota, water supply source;

- Completed evaluation of principal sources of natural and man-caused groundwater contamination in the northeastern, northcentral, and southeastern States in order to determine research priorities for pollutant source reduction and control methods for protecting against further groundwater quality degradation;

- Published various reports on fates of pesticides in water, assessment of the impact of nutrients on lake water quality in the eastern United States and on results of Great Lakes Reference Study;

- Completed first year of monitoring of a eutrophic lake following nutrient source reduction by advanced water treatment and developed preliminary mathematical model for the recovery process;

- Determined the effect of closed cycle cooling systems on the quality of aquatic plumes from cooling towers and developed preliminary determination of the behavior of atmospheric plumes from cooling towers;

- Completed reports on research knowledge regarding the Nation's estuaries for the congressionally mandated "National Estuary Report;" and

- Completed analytical methods manual for EPA's ocean disposal permit program.

1976 Plan

Asbestos fiber identification and quantification procedures will be expanded to include tissue analysis. Research and predictive model development will be continued for the determination of the fate of additional pesticides and metallic pollutants. A river basin model will be developed for predicting loading rates from nonpoint sources of pollution. Groundwater pollution problems in additional regions of the United States will be assessed, as will groundwater pollution originating from septic tanks and from irrigation return flow disposal. A design, construction, operation, training, and maintenance handbook for environmentally safe subsurface waste injection will be developed, and alternative methods of environmentally acceptable underground injection techniques will be investigated. A study of nutrient inflow to eastern and mid-continent lakes will be continued and several additional lake restoration techniques will be evaluated, including lake drawdown and nutrient inactivation. Spray cooling and cooling water plume prediction models will be field tested. In the Great Lakes study effort, the combined U.S.-Canada Upper Great Lakes Reference Study report will be completed; a final report on the biological assessment of Lake Erie nutrient control programs will be issued; the predictive mathematical model developed during the IFYGL-Lake Ontario program will undergo verification; and similar predictive models for Saginaw Bay and Lake Huron will be developed.

For the marine program, reports on the fate of microbiological agents originating from ocean outfalls, on the effects of municipal sewage sludge deposition on continental shelf benthos, on biological indices of pollution in estuarine ecosystems, and on the effects of crude oil on Gulf of Mexico salt marsh ecosystems will be completed.

Broad epidemiological studies will be conducted to derive recreational water quality criteria based on scientific health effects data. Extensive studies will be conducted to determine the transport and health effects of contaminants resulting from the application of wastewaters and sludges to the land.

Purpose of Increase

We are requesting an increase of $1.0 million for the health effects program. This increase will support conduct of intensive studies on the health effects of the land application of wastewaters and sludges (spray irrigation, infiltration-percolation, etc.). The possible transport of toxic substances and pathogens (especially virus) from wastewater and sludge to man's food chain and drinking water will be determined. Such studies will require extensive monitoring of waste components and waste breakdown products in air, water, and food and the determination of the effects of such contaminants on man through toxicological and epidemiological studies. Inadequate funding will result in delayed formulation of health related criteria for the safe treatment and disposal of wastewaters and sludges. Such criteria are urgently needed by EPA to formulate regulations for alternative cost effective waste treatment techniques.

Water Quality

Research and Development

Control Technology

	1975	1976	Change
Control technology.....	$27,593,500	$25,101,900	-$2,491,600

This activity covers the research, development, and demonstration of new, improved, cost effective technology for the control and treatment of wastewaters and sludges from urban and rural populations and industrial sources, and the prevention, control and management of wastewaters from agriculture, mining, construction, spills,and other sources. For municipal and rural populations, efforts are directed to the development and demonstration of treatment processes and control systems capable of removing organic and other pollutants from sewage, combined sewer overflows (sewage and storm water), and urban stormwater discharges. This research directly supports the Agency's multibillion dollar grant program for construction of publicly owned wastewater treatment works. The industrial water pollution control technology program is aimed towards accelerating improved treatment practices and decreasing the cost of "Best Available Technology" (BAT) treatment. It provides the primary data base for the establishment of economically and technically feasible effluent guidelines and treatment parameters for industrial liquid waste discharge permits. The control technology research program relating to mining, agricultural, and other nonpoint sources includes: development and validation of analytical methods to assess the magnitude and character of these sources and to verify effectiveness of source management procedures under local conditions; demonstration and documentation of the effectiveness, cost, and range of applicability of currently available pollution control or source management options; and the development and demonstration of new, cost effective systems.

1975 Program

The program addressed to municipal-rural technology in 1975 emphasizes development and demonstration of cost-effective methods of sludge processing, soil treatment systems,

consolidation of results obtained from completed combined sewer overflow control technology studies, stabilization pond upgrading techniques, and alternate disinfection processes. The $5 million increase mandated by Congress was utilized to accelerate the demonstration of cost-effective sludge management systems, substantially complete the lagoon upgrading program, and provide preliminary design guidelines and criteria for irrigation type soil treatment systems. The industrial control technology research program for 1975 concentrates on demonstration of innovative cost-effective technology required to support the Agency's effluent guidelines. The research activity in nonpoint pollution control is directed to land disposal of animal wastes, reduction of pollution from cropland runoff, abandoned mine pollution control, and control of oil and hazardous materials spills. The nonpoint pollution management program also includes the development of predictive tools to determine the magnitude of runoff problems from nonpoint sources under a wide variation of local conditions.

1975 Accomplishments

- Completed guidelines for application of municipal wastewater effluents and sludges to the land for use of regional offices, municipalities, and design engineers in planning and evaluating control facilities;

- Initiated evaluation of feasibility of joint sludge/refuse processing and utilization, implemented wet oxidation and pyrolysis pilot plant investigations to provide additional sludge processing utilization alternatives and to more effectively utilize on-site energy sources;

- Completed a nationwide characterization and evaluation of impact from urban stormwater and nonsewered urban runoff to provide an improved base for evaluating total urban runoff pollution control alternatives;

- Developed two algae removal processes for upgrading ponds and completed the pilot scale evaluations of three new disinfection processes for activated sludge effluents;

- Completed a national assessment of pollutant discharges from nonpoint sources, including a compilation and evaluation of readily useable methods for estimating discharges from nonpoint sources;

- Developed, in cooperation with USDA, a user's manual describing farm management practices for preventing, or reducing to a minimum, the runoff of fertilizers and pesticides from cropland;

- Published a comprehensive technical manual based upon demonstrated technology for control of pollution from surface coal mines in the eastern United States;

- Conducted a demonstration of a cost-effective closed water cycle system in a semichemical pulp mill;

- Conducted a demonstration of a method to recover the valuable protein from meat packing wastewater effluents; and

- Evaluated the economics of the application of pretreatment toxic and secondary treatment standards on the joint industrial-municipal system of Buffalo, New York.

1976 Plan

Several existing tasks will continue into 1976. The program addressed to municipal-rural technology will continue emphasis on development and demonstration of cost-effective methods of sludge processing, utilization, and disposal; soil treatment systems; alternative disinfection techniques; and consolidation of results obtained from completed combined sewer overflow control technology and stabilization pond upgrading techniques studies. Demonstrations focused on the beneficial utilization of wastewater sludges will include sludge pasteurization, sludge composting, refuse/sludge pyrolysis and wet oxidation, spray irrigation and infiltration-percolation soil treatment systems, and nitrogen control systems. These projects will expand the availability of demonstrated, cost-effective technologies for wastewater management and reduce the cost of treatment. New programs will include initiation of small or full scale evaluation/demonstration projects to scale-up cost effective control technology developed at bench or pilot scale. The areas involved would be storm and combined sewers, advanced waste treatment trains, and technology for small wastewater flows. Also, a report will be prepared on performance and reliability of publicly owned biological wastewater treatment works as a function of operation and maintenance.

In the nonpoint area, cost effective techniques will be studied for predicting and reducing the runoff of pollutants from cropland. Controls for discharges from the mining of

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ores, minerals, and other nonfuel substances will also be demonstrated. A comprehensive technical manual will be prepared for the control of pollution from abandoned coal mines in the eastern United States. Industrial control technology will concentrate on demonstration of cost effective technology required to support the Agency effluent guidelines for BAT.

New efforts will include projects to verify BAT for recycling of biologically treated paper board wastewaters, demonstration of a closed water cycle on one stream of a steel mill, BAT confirmation on combined refinery/petrochemical plant wastewaters, and textile wastewater abatement by process modification.

Purpose of Decrease

The $2.5 million funding decrease in this program is the net of the "one-time" 1975 congressional increase of $5 million for municipal control technology and a requested 1976 increase of $2.5 million for accelerated nonpoint source management research. The seven position decrease is the net of a 1976 three position increase in the nonpoint program coupled with a 10 position decrease in the municipal program. These 10 positions will be reprogrammed to higher priority programs and greater use will be made of the contract and grant mechanisms to achieve the objectives of the municipal control program.

In the nonpoint source management program, the additional $2.5 million and three positions will serve to accelerate the production of technology required to determine the reduction in pollutant load resulting from application of specific nonpoint control measures, and to evaluate the cost and technical feasibility of such measures. Efforts will also be made to establish limits of reasonable control for nonpoint sources and to establish specific control guidelines to serve as the basis for application of management systems.

Construction Grants

	1975	1976	Increase or Decrease
Contract Authority.	$9,000,000,000	...	-$9,000,000,000
Liquidate Contract Authority.....	1,400,000,000	$500,000,000	-900,000,000

This program provides grants to municipal, intermunicipal, State, and interstate agencies to assist in financing the planning, design, and construction of municipal wastewater treatment facilities. Amounts approved from authorizations for contract authority are allotted to each State on the basis of formulas set forth in the Federal Water Pollution Control Act Amendments of 1972 and subsequent legislation. Within these allotments, grants are awarded on a priority basis for individual projects. Each project is eligible for 75 percent in Federal assistance.

The Federal Water Pollution Control Act Amendments of 1972 substantially altered methods of funding the construction grants program and the methods of providing assistance to individual projects. Under the Amendments, both the percentages of Federal grants and the annual amount of monies authorized and appropriated has been increased in several steps. The current percentage of Federal assistance is 75 percent of total eligible costs. Rather than awarding a grant to the applicant for the Federal share of a project, EPA is authorized to enter into a contractual obligation for payment of the eligible proportional costs of the separate elements of each project. Under this authority, a new three step approach to funding projects has been adopted. The first step is development of the facilities plan which includes a preliminary description of the project, a cost effectiveness analysis, an environmental assessment, an infiltration/inflow analysis, and identification of effluent discharge limitations. The second step is development of design plans and specifications. The third and final step is to fund the actual construction of the treatment work. Grants are made for each of these steps with more than one grant possible during the construction phase. Payments against these contractual obligations will be made to the applicant as all or portions of each of these elements are completed. Under this contractual method of providing financial assistance, EPA is obliged to estimate

each year the amount of payments that are required to meet all contractual obligations and to seek appropriations to cover these payments.

1975 Program and 1976 Plan

To implement this method of funding, EPA has allotted a total of $9 billion of contract authority to the States and other jurisdictions during the 1973-1975 period. As prescribed by regulations promulgated pursuant to provisions of the Federal Water Pollution Control Act Amendments of 1972, the allotment of 1973/1974 funds was based on a formula utilizing the needs identified in the 1971 municipal needs survey. The $9,000,000,000 in funds will be allotted in 1975 for 1976. This represents the remaining contract authority authorized by legislation for the 1973-1975 period, recently ordered to be released by the Supreme Court.

Accomplishments

Federal grant assistance for construction of municipal wastewater treatment works has been authorized since 1956. Since that time, through June 30, 1974, $8.2 billion of assistance has been provided for 15,200 projects having a total cost of $20.3 billion. Based on an analysis of actual obligations to date, as well as projected future obligations of contract authority funds, EPA is requesting an appropriation for liquidation of contract authority in the amount of $500 million for 1976.

NITROGEN AND PHOSPHOROUS POLLUTION

Mr. BOLAND. As the justifications indicate on page WQ–1, under water quality, EPA is requesting $210,707,800 for fiscal year 1976. That is an increase of $29,079,000 above the 1975 level. 1976 also reflects a net decrease in employment of 88 positions below the fiscal year 1975 level.

Looking at the narrative in this area, which is on page WQ–2, that is an interesting assessment of the Nation's water quality which is briefly stated in that second paragraph. You indicate that the pollutants associated with oxygen demanding loads and bacteria are improving, while those associated with nitrogen and phosphorus are getting worse.

I would assume that the nitrogen and phosphorus pollutants would largely be attributable to nonpoint sources, such as agricultural runoff. Isn't nonpoint source pollution precisely where we are doing the least, so that it would be safe to assume that the nitrogen and phosphorus problem will continue to get worse? Is that a fair assumption?

Mr. AGEE. Yes, it is a fair assumption. At least we can say it is not going to get any better until we do give specific attention to a nonpoint source program.

MUNICIPAL NEEDS SURVEY

Mr. BOLAND. At the bottom of page WQ–3, you talk about the total costs required to clean up the Nation's water. You indicate that the 1973 municipal needs survey indicated that approximately $36 billion would be required to achieve the secondary treatment level and that this amount excluded needs for collection systems, storm water overflow, and correction in infiltration problems.

You estimate that the total needs including these problems are more than $60 billion. The committee has heard figures that approach $350 billion, if you are going to properly take care of the storm water runoff problem.

What is your current estimate of the funds required to clean up the Nation's waterways by 1983, including storm water runoff pollution?

Mr. AGEE. Yes, sir. We did complete a needs survey following the submission of this budget information. The needs survey that we submitted to the Congress this year had a total of $342 billion. We had that broken down into six major categories to highlight, I think, the typical kind of problem we have.

Secondary treatment, treatment more stringent than secondary, advanced treatment if you will, plus the interceptor sewers and pumping stations in the aggregate amount to $46 billion. This is closely allied or related to the $36 billion that was cited in our 1973 report.

The largest cost that we have identified to meet the requirements of the Federal Water Pollution Control Act and the eligible features within the construction grant program is the cost of collection and treatment of storm waters, and that total cost is some $235 billion.

Our primary emphasis on municipal source control has been and will continue to be in the near future specific emphasis on meeting secondary treatment and where the water quality requires it higher in these two areas. The price tag on this again we estimate to be something like $46 billion nationally.

STORM WATER RUNOFF

Mr. BOLAND. So the figures indicate, of course, and the Council on Environmental Quality testified before the subcommittee, that in many ways the pollution from storm water runoff is as bad or worse than from municipal wastes. Would you agree with that?

Mr. AGEE. Mr. Chairman, it can be at certain times. Generally the oxygen-demanding substances is what we generally take care of or provide for when we go to secondary treatment. The storm water runoff is particularly severe where it impairs water quality use.

For example, in the eastern part of the United States, where we have high summer rainfalls, and we get a lot of runoff, that can pollute that receiving water so that water quality use, such as swimming, recreation, cannot be attained, but it still is a very serious problem, and will continue to be a serious problem.

Mr. BOLAND. We understand that it is possible that you may propose to declare storm sewers ineligible for Federal funding; it that true?

Mr. AGEE. Mr. Chairman, we will be undertaking hearings in June, I think, at four locations across the country, to consider a number of amendments to the Federal Water Pollution Control Act specifically in the construction grant area, and one of the matters we will be discussing is the eligible features in the construction grant program, including storm water collection and treatment.

Mr. BOLAND. Of course, if storm sewers were declared ineligible for Federal funding this would cut the estimated costs considerably, wouldn't it?

Mr. AGEE. Yes, sir, it would.

Mr. BOLAND. But the question is, if storm water runoff is the keystone to getting the country's water clean, it would be difficult, would it not, to get them clean if we declared storm sewers ineligible for Federal assistance?

Mr. AGEE. Yes; to a large extent it would. In our planning program, we have the planning grants and we will have about 140 or so grants at the end of this fiscal year. These are generally to the urbanized areas. One of the planning efforts and studies being undertaken by the metropolitan areas is the study and evaluation of storm water, not only looking at what the collection and treatment costs might be and methods they might use, but other alternative measures that might be undertaken to reduce the impact of storm water.

Just for example, it may or may not be a viable alternative, but just more frequent street sweeping might take a lot of that material and keep it from being rinsed away through a heavy rainfall. These are some of the things being explored at this point in time.

Mr. BOLAND. You have a good legend on water quality on your overview and strategy.

Mr. TALCOTT. Mr. Chairman, may I ask a question?

Mr. BOLAND. Yes.

USAGE OF WATER

Mr. TALCOTT. On page WQ-2 you have indicated the usage of water, 200 billion gallons by industry a day, 130 billion gallons by agriculture and only 80 billion gallons by the communities. Isn't there some other factors that we should consider? The water that is used by industry for

just cooling, that is probably not polluted. It runs off and is used and may be reused again by somebody else without much degradation of quality.

Mr. AGEE. Mr. Talcott, I am sure those 200 billion gallons per day does include that kind of water use. Generally, as you stated, that is not a polluting discharge unless it contains heat.

Mr. TALCOTT. Even heat could be dissipated without too much injury.

Mr. AGEE. Yes.

Mr. TALCOTT. Except to the immediate area. In agriculture, too, a lot of that is just plain irrigation that goes into the ground and it fills underwater aquifers and is reused again. It is not all polluted water by any means, is it?

Mr. AGEE. That is correct.

Mr. TALCOTT. Whereas community water is used in households and that sort of thing and is all polluted?

Mr. AGEE. Yes; hopefully we cleanse it before we put it back.

Mr. TALCOTT. But just the fact of usage isn't the main factor. You are concerned about the amount of pollution and the cost of getting it back to usable water again?

Mr. AGEE. Yes.

CONSTRUCTION GRANTS STAFFING

Mr. BOLAND. We will turn to page WQ-9 and abatement and control. On the bottom of that page, you have laid out the employment by discipline, and we note that under municipal source control, the largest increase in positions is requested. Here you are asking for an increase of 110 positions above the 1975 level of 681. I believe that this is the area that specifically handles the workload requirements under the major waste water construction grant program, is that true?

Mr. AGEE. Yes, sir.

Mr. BOLAND. I am going to try to get the figures in perspective. We talked about this a number of times under general questions, but I want to review these people numbers so that we understand what we are talking about here.

Within the 681, I believe that 521 positions are currently allocated to waste water treatment, is that correct?

Mr. ALM. That is correct, sir.

Mr. BOLAND. For 1976, under municipal control, you show 791, and I believe that within that total, 646 positions are allocated directly to the waste water program, is that correct?

Mr. ALM. That is correct.

Mr. BOLAND. And, finally, the 646 positions includes 161 positions you have reprogramed from other areas, is that correct?

Mr. ALM. That is correct.

Mr. BOLAND. Now, in addition to the 646 positions currently programed for 1976, there are 100 positions pending in OMB, and an additional 100 positions approved in the 1975 Emergency Employment appropriations bill. Is that correct?

Mr. ALM. That is correct.

Mr. BOLAND. If you should get those 200 positions, you would have 846 people working in this area, is that correct?

Mr. ALM. That is correct.

Mr. BOLAND. How much additional money would you need in 1976 to fund those extra 200 positions?

Mr. ALM. 200 positions at about $20,000 per position, that would be $4 million.

Mr. BOLAND. Finally, on top of those 200, you have a request for another 300 people pending at OMB, is that correct?

Mr. ALM. That is correct.

Mr. BOLAND. And how much would those positions cost? I presume $6 million.

Mr. ALM. $6 million.

Mr. BOLAND. That is fine. Now we know what the figures are.

INCREASED WORKLOAD DUE TO SUPREME COURT DECISION

Mr. ROUSH. The Supreme Court action, which released the balance of the $9 billion available for waste treatment grants, increased obligations in fiscal year 1976 by about $1.4 billion, and the number of active projects will double from 4,300 to over 8,500. We also have asked you about the ability to cope with this increased workload under the general questions, but let's come back to it for just a moment.

To what extent does your request here today contemplate increased workload resulting from the release of the $9 billion by the Supreme Court decision?

Mr. AGEE. Our letter to OMB requesting 500 additional positions was necessary in light of the new release of construction grant money from the courts.

Mr. ROUSH. In other words, taking into account the Supreme Court decision and the workload that it will impose, you will need?

Mr. AGEE. 1146.

Mr. ROUSH. Approximately 500 positions that you just outlined to Mr. Boland, is that correct?

Mr. AGEE. That is correct.

Mr. QUARLES. Could I ask to clarify that. Would that be 1,146 positions specifically in the waste water treatment grant program?

Mr. ALM. That is correct.

Mr. QUARLES. So that the category, municipal source control, would be a proportionately larger number, since that includes some other positions?

Mr. ALM. The total for municipal source control would be 1291.

Mr. ROUSH. It occurred to me when you responded to Mr. Boland's question that $20,000 per position was quite a bit.

Mr. ALM. That includes support costs, et cetera.

Mr. ROUSH. Where would these additional people be working? Would you distribute those through the various regions?

Mr. ALM. I think they would all be in the regional offices.

Mr. AGEE. Yes, we would distribute these regional people, basically all of them or most all of them, to the regional offices. That is where our need is.

Mr. ROUSH. That has been our observation.

Mr. AGEE. Yes, sir.

Mr. ALM. May I make one comment about the increase. Mr. Agee indicated that most of the increase would be for workload. Some portion of the increase, however, is to improve the quality of our review of projects, both in terms of assuring the fiscal integrity of the Federal funds, to assure cost effectiveness, and to assure that a broad range of environmental concerns have been taken into account in the development of these projects. While a great deal of the funds are for the purpose of a larger level of program, also some of the people would be including the quality of our review.

Mr. ROUSH. I think you can understand from the questions which came from the various committee members yesterday that this is a matter of concern to those of us who have a very, very close association with people who are going to be the beneficiaries of this program, referring particularly to our local communities and their desire that in addition to the quality of the review, the time element is, I think, a matter which is of primary concern to so many of them. I assume when you say quality review you are speaking also of timely review?

Mr. ALM. Yes, including the kind of consultation we discussed yesterday.

WATER QUALITY AMBIENT TREND MONITORING

Mr. BOLAND. On page WQ–14, ambient trend monitoring, you are requesting $5,167,800 for this activity in 1976. I notice that you indicate that this activity is designed to measure the quality of water and to relate the changes in this quality to policy alternatives. This seems to make sense, but I am wondering how this activity is different from the report of the National Commission on Water Quality, which I assume will be also measuring water quality looking toward what policy changes are required.

As you know, that Commission is due to make a preliminary report in, I think, October of 1975?

Mr. AGEE. Yes.

Mr. BOLAND. What about it? Are you doing about what they are doing?

Mr. AGEE. The National Water Quality Commission has essentially used our ambient water quality data in their analysis. They are doing their review and looking at some or a good many of our programs to determine what recommendations they may well make to Congress in adjusting these.

We use data for a number of reasons. One of the principal activities in 1975 has been supporting data in our permit program, to identify the quality of streams that indeed need a higher degree of treatment than secondary treatment for municipalities, for example.

It also gives us benchmarks on which to relate the progress that we are making in water pollution control. I believe we indicated that the oxygen demanding substances, dissolved oxygen in the streams, is in fact improving while the nutrients are decreasing, or getting worse if you will. That is how we use these ambient trend monitoring stations.

We have something between 80 and 90 paired stations as we call them. We select a reach of river, and we have a monitoring station above a waste discharger and one below it, so we can quantify the differences between these points, and it gives us some sense of direction in where and how we should implement our programs on a priority basis, to clean up the water.

GENERAL POINT SOURCE FILE (GPSF)

Mr. BOLAND. On page WQ-16 you talk about the reason for the proposed decrease of $1 million in ambient trend monitoring for fiscal year 1976. You indicate that the decrease results from the termination of the development of a computerized inventory of point source discharges known as the general point source file. You say that the important management needs that the GPSF would have met will be provided by other, less expensive, data systems.

GENERAL POINT SOURCE FILE COSTS

This description suggests that what you started out doing you have now decided doesn't quite make as much sense. How much have you spent on this GPSF file to date?

Mr. AGEE. Mr. Chairman, I can't give you a figure.

Mr. ALM. We will supply that figure for the record.

[The information follows:]

The cost of GPSF development and operation from the inception to termination is as follows:

Contracts and computer costs [1]	$3,171,000
Personnel costs	4,550,000
Total	7,721,000

[1] Contracts and computer costs cannot be defined individually since in 1971 and 1972, contracts included both development and computer services.

ORIGIN OF GPSF

Mr. BOLAND. Why was it started?

Mr. AGEE. I think our eyes were bigger than our stomach if you will. We just plain designed a Cadillac system when a Ford system would do the job for us. I think we recognized that the sophistication of the general point source file first of all was not manageable by the Agency and wasn't really necessary.

We have been able to salvage a good many pieces of that general point source file.

Mr. BOLAND. Were you aware of different systems when you set up the general point source file? Were you aware that there were other systems that you now say are less expensive that you can use?

Mr. AGEE. We were not entirely aware of all of the systems that were available to us at that point in time.

Mr. QUARLES. I think that there were judgments to be made, however, as to how elaborate a system should be established, and one of the problems we have encountered is the actual feasibility of operating as elaborate a system as we had set out to establish. The problems of operating that system, as we have gotten into actual experience, have been the new factor that has really caused us to settle for a less elaborate system.

SECTION 208 PLANNING

Mr. BOLAND. We will turn to page WQ–17, "Technical assistance and planning." The justifications indicate that you are requesting an increase of $48,226,300 for 1976, and under water quality planning an increase of $51,616,600. If we turn to page WQ–19, where the purpose of the increase is described, we find that the justification may be a little misleading in that area.

You point out that the apparent increase is due to the shift of funding of section 208, areawide waste treatment management planning grants, from contract authority to budget authority. That is correct; isn't it?

Mr. AGEE. Yes, sir.

Mr. BOLAND. In actuality, the funds available to fund water planning activities in 1976 will be substantially reduced?

Mr. AGEE. Yes.

Mr. BOLAND. To provide a little history, as I understand it, this program was authorized at the $50 million level in 1973, and none of that authorization was used; is that correct?

Mr. AGEE. Yes.

Mr. BOLAND. In 1974 it was authorized at the $100 million level, and only $13 million was used.

Mr. AGEE. That is correct.

Mr. BOLAND. In 1975 it was authorized at the $150 million level and you are deferring $30 million of that so that the current planned use level is approximately $120 million; is that correct so far?

Mr. TRAIN. We are hoping we are going to be able to use a portion of the deferred funds.

Mr. AGEE. Mr. Chairman, it is our intent to do our very best to utilize the full $150 million that has been authorized for fiscal year 1975.

Mr. BOLAND. Are you deferring $30 million of that?

Mr. AGEE. In discussions with the Office of Management and Budget, if we are in a position to obligate that money to projects that are ready to go, they will permit us to go to the full $150 million authorization level.

Mr. TRAIN. It is deferred, in fact, at the present time, but they will withdraw the deferral.

Mr. BOLAND. It was sent up as a deferral to the Congress.

Mr. TRAIN. Yes.

Mr. ALM. The deferral message indicated that if we had further needs, the funds would be made available.

Mr. BOLAND. In 1976, under section 208, you are proposing to shift from contract authority to direct appropriations. You discussed this yesterday. I believe you are requesting $53 million.

Mr. TRAIN. That is correct.

Mr. BOLAND. So, the actual net decrease in the section 208 program is from a level of about $120 million to $53 million? Is that correct, or from $150 million?

Mr. TRAIN. From $150 million, if we can reach that level, at a different matching formula.

Mr. BOLAND. That is correct; isn't it?

Mr. TRAIN. That is correct.

Mr. BOLAND. Why the drop?

Mr. TRAIN. I think, in part, it is based upon an anticipation of the need across the board in the country.

Mr. AGEE. We have estimated that we need something in the neighborhood of 291 agencies getting designated. That is the figure that our people have identified now of local planning agencies that we need to do this 208 planning. At the end of fiscal year 1975, with an additional 66 that we would fund from the $53 million, we would have some 220 of these plans underway, leaving something like 71.

Our request for $53 million would accommodate something like 66 new projects. We feel that that is reasonable for next fiscal year. We have had a very big push this year to get as many projects ready to go as we possibly can. We will have something like 140, but it would leave for remaining funding in future years some 71 projects, probably an additional $50 to $75 million.

CLEAN LAKES PROGRAM

Mr. BOLAND. On the same page, WQ–19, under technical information assistance you show a decrease of $3,382,700. A substantial part of this decrease is associated with the clean lakes program. It was in this area that Congress added $4 million last year to undertake a clean lakes program. We note that you are not asking for any additional funds in this area.

Will you describe this program to the committee, and tell us why you are not asking for any additional money.

Mr. AGEE. We did get the $4 million increase in fiscal 1975 for the express purpose of dealing with or handling a clean lakes program. We have developed regulations on how to use this money. Basically the requirement that we have is that it be a 50–50 matching program, 50 percent from the State and/or local people, 50 percent out of the Federal $4 million.

To date we have not received applications or have not completed applications and funded any of these projects. We do expect to fund these in fiscal 1976, something like 8 to 10 projects, but we did not request any additional money in this area for fiscal 1976.

Mr. ROUSH. Mr. Chairman.

Mr. BOLAND. Yes.

Mr. ROUSH. The fact is that you are not very enthusiastic about the clean lakes program, isn't it?

Mr. AGEE. At this point in time we are not too enthusiastic about it.

Mr. ROUSH. Why aren't you? Once a lake is lost, it is lost forever, if it is lost to pollution. I am really concerned about this, not only because I live in a lake area, but because there are many lakes in this Nation, and a lake is not like a stream. A stream can cleanse itself but a lake cannot.

You speak of us giving $4 million in this area, but the authorizing legislation goes way beyond that, does it not?

Mr. AGEE. Yes, sir, it does.

Mr. ROUSH. It certainly does. The authorizing legislation authorized to be appropriated $50 million, $50 million for the fiscal year ending June 30, 1973. It authorized $100 million for the fiscal year ending 1974, and $150 million for the fiscal year 1975.

REQUEST FOR CLEAN LAKES PROGRAM

It just seems to me that the Environmental Protection Agency has totally ignored, almost totally ignored the will of Congress in this regard. How much was appropriated in each of those fiscal years for the clean lakes program?

Mr. AGEE. I would have to defer to somebody else. I am told nothing but the $4 million.

Mr. ROUSH. Nothing but the $4 million?

Mr. AGEE. That is right.

Mr. ROUSH. Have you asked for any funds in those 3 fiscal years for the clean lakes program?

Mr. AGEE. My understanding is that we have not officially asked OMB for any additional funding in our official request to OMB.

LAKE RESTORATION

Mr. TALCOTT. Do we have any bad lakes, Ed?

Mr. ROUSH. Yes, indeed, we have some bad lakes. I guess we do have bad lakes.

Mr. TALCOTT. Where are the bad lakes?

Mr. ROUSH. I can take you into my congressional district of Indiana, and I can show you some lakes that are practically lost to pollution. It seems to me that something has to be done. Look at Lake Erie. Lake Erie is in terrible shape, and it is amazing that it is coming back at all. Lake Erie is a shallow lake, and it is filled with pollutants. I am more concerned about the small fresh water lakes. We still have them, and I want to keep them. Why is it that they are lost, because there isn't any great population center around them, and the population center comes and goes. It is expensive to build a sewer collection system around lakes. It is expensive to build a sewage treatment plant in that area of the lake.

Mr. TRAIN. Mr. Chairman, could I make some comments on that, because I like my small lakes, too, and share your concern over the problem. I think you have to understand just what Congress intended in this program. It was not intended as an additional sewage treatment facility program.

To the extent that a pond or a lake is receiving excess nutrients and other pollutants from discharges, from second homes or towns or whatever, this program is not designed to deal with the abatement of that pollution.

Those problems are intended to be dealt with under the conventional construction grant waste treatment program. We are talking, as I understand it, about a lake restoration program, which deals with the problem of the lake which has eutrophied, over a period of time, and you have gotten a buildup of organic materials from the rotting of vegetation and so forth, so that the lake itself has become a marsh or something of that sort. Or you have a large amount of sediment, polluted sediments on the bottom of the lake, which can readily get stirred up, even after you have cut off the introduction of pollutants and then you reintroduce a water quality problem.

We are talking here about the drainage of lakes, the cleaning out of the bottom, and the reestablishment of a clean sediment of some sort, and then the refilling of the lake.

PRIORITY OF CLEAN LAKES PROGRAM

We have really been, as I understand it, somewhat at a loss to know just what kind of a program to actively pursue in this regard. We do see the need and the problem, and we do wish to utilize reasonable amounts of funds. I think this $4 million certainly is a starter in this regard, to try out and experiment with techniques for actual cleaning up one of these small lakes. We are really not talking about the Lake Erie situation, although that is a large example of what we are talking about.

I don't really honestly believe we are in a position to use, in this program, vast amounts of money. I don't think we would know what to do with them. I think when we have to compare this need with all the other needs before the agency, I would say that at this point at least, and until such time as we have a clearer fix on how such a program could be fully effective, that it really should have a somewhat lower priority, and that is the way the budget has handled it. I do think the budget is defensible in this regard, although I certainly share your desire to clean up these lakes.

Mr. ROUSH. You may share it, Mr. Administrator, but it seems to me that the action of your Agency doesn't indicate, and the response from your colleague doesn't indicate, that you are too enthusiastic about this particular matter.

The clean lakes section, which is section 314, states what each State shall do, and then the amount of money which is to be appropriated to fulfill these purposes. Among other things is an identification and classification according to the eutrophic condition of all publicly owned freshwater lakes in each State, procedures and processes, methods, including land use requirements to control sources of pollution of such lakes.

Mr. TRAIN. We have had a nationwide program to attempt to identify the level of eutrophication of lakes in States from the Atlantic to the Rocky Mountains, the whole Nation.

Mr. ROUSH. Is that the experimental program going on in Oregon?

Mr. TRAIN. It is a sampling program to try to determine what the level of nutrients going into these lakes really is.

Mr. ROUSH. You haven't gone very far with that, have you?

Mr. TRAIN. I think it has been a very extensive program.

Dr. TALLEY. Sir, the monitoring itself is being run out at Las Vegas. We will have well over 600 lakes in the western part of the country now, and the sampling will be through by December 1975. By December 1976, the group in Corvallis will perform the analysis, and then we will know the actual program.

Mr. ROUSH. I was going to ask when we came to that part how many lakes we had in Las Vegas. I have been out there.

Dr. TALLEY. There is one large one.

Mr. ROUSH. One lake.

Mr. TALCOTT. It probably has more water than all of Indiana, but we in California share it.

GUIDELINES FOR LAKE RESTORATION PROJECTS

Mr. ROUSH. In a letter to me earlier this year you indicated that EPA was then preparing guidelines for States for obtaining funds for lake restoration projects.

Have these guidelines been since issued?

Mr. TRAIN. I don't know, sir.

Mr. AGEE. Yes, they have.

Mr. ROUSH. Can we expect funding of actual projects in the near future, for example, in this coming fiscal year, that being the case?

Mr. AGEE. Yes.

Mr. ROUSH. From what moneys will that come?

Mr. AGEE. From the $4 million we cited. We expect 8 to 10 projects.

Mr. ROUSH. Have you obligated any of the $4 million?

Mr. AGEE. No, we have not.

Mr. ROUSH. Have you made any determinations since you have issued these guidelines; do you have any indications as to how much money could be used in this area and how much of a demand will be made on funds? Will it exceed $4 million?

Mr. AGEE. I think I can safely say that it will exceed $4 million, yes.

Mr. QUARLES. I think that is part of the problem. On the basis of the analyses that were done, the basic problem is that the amount of money to tackle this problem comprehensively would be virtually astronomical, and if you prune that down to the level that the amount of money being spent is reasonable, then the amount of the problem that you are accomplishing a solution of is very small.

CONGRESSIONAL INTENT ON CLEAN LAKES PROGRAM

Mr. ROUSH. I think that Congress must have, when we passed the Clean Water Act amendments, contemplated that this would be a much, much larger program than apparently you have been willing to engage in, just from the authority that was given for the appropriation of much larger sums of money.

I hate, Mr. Chairman, to be so insistent on this, but I would warn you that if I sit here for the next 10 years, that you are going to hear this story from me every year until we get some satisfaction, because I felt that it was the intent and the will of Congress that we not only pay attention to our streams, but that we pay attention to our lakes.

As I say, once the lake is lost, it is extremely difficult, if not impossible, to restore it.

Mr. QUARLES. This is something we propose to continue to discuss with you. I understand that for the 1974 year, that the Senate subcommittee put in $15 million for this program, and the House committee struck that out in the conference. There has been some difference of judgment as we have gone along, as to the value of carrying out this program, but it is something that we will need to pursue, I think, and discuss with you.

Mr. ROUSH. If my excitement was flavored with disappointment, I hope you understand. I am an enthusiastic supporter of EPA.

Mr. QUARLES. We appreciate that.

Mr. ROUSH. But in this regard I am also quite adamant.

Mr. TALCOTT. Mr. Chairman, I hope we can assist Mr. Roush, because I think he has a good point. But there are a number of lakes that I know of that have been greatly improved simply by improving the water quality control and controls on the motorboats. Some people in my area think you have almost ruined the lakes for recreational and other kinds of use because you have been so tough in trying to protect and improve the water in lakes.

Lake Tahoe, for instance, one of the most beautiful lakes, is a big lake that has some problems with degradation. But I think we are catching up with Lake Tahoe now, because of sewage treatment plants, building codes, interstate compacts, and concern about the lakes. I think we are making some great progress. Some of these lakes don't drain out and fill up with sediment. That may be an entirely new problem that you have to do some research on. But I think there has been some great progress made, at the request of Congress and the work of EPA to improve the conditions in lakes as well as rivers, streams, and irrigation projects around the countryside.

Mr. TRAIN. That is true and I appreciate that comment.

We do have a concern over this particular program. It has been one which has appeared. It was $100 million in one appropriation bill and this was vetoed. This was one of the items mentioned by President Nixon in his veto message, and Congress took it out in the reenacted appropriations, so it has had a history of sort of coming and going.

We have honestly had problems in trying to define just how to proceed under this. One of the problems, as Mr. Quarles indicated, is that there is going to be an enormous demand for projects under this $4 million. We have got an awful lot of lakes in this country, many of which they appropriately considered for treatment of whatever it turns out to be, and it is going to be awfully difficult to make those choices.

There is going to be great demand among different areas around the country.

Mr. TALCOTT. One of the problems, Mr. Chairman, is that there have been so many demands on local areas, counties, cities, and areas where there are lakes, that they have had to spend so much of their money on other mandated programs, water control, air control, wastewater control, and all, that they have run out of money to spend on these kinds of problems, where there isn't the mandate.

Most lakes are local problems, but the Federal Government has mandated they spend so much money on these other things that they don't have any money left to spend on their lakes.

WATER QUALITY ACADEMIC TRAINING

Mr. BOLAND. On page WQ–25 we have the academic training program. This is the program which OMB and EPA have gradually been phasing out, and I gather that your request for fiscal year 1976 is your last request for this program. Is that correct?

Mr. ALM. That is correct.

Mr. BOLAND. Why is EPA or OMB phasing this program out?

Mr. ALM. As we discussed earlier, OMB has an across-the-board policy with respect to academic training programs. I believe it was

1973 that EPA announced that, over a 3-year period, the program would be fully phased out. Under the current schedule, 1976 would be the last year that this program would be funded.

Mr. BOLAND. What are the manpower needs in this area? I have a feeling that the manpower needs in this area, environment and energy, are considerable, and that there is a lack of personnel with both expertise and knowledge.

Am I correct in this assumption?

Mr. ALM. This particular program is aimed at master's degree and doctor's degree level people. There is a shortage of these people which we project will be more acute in the future.

Mr. BOLAND. After they get their master's and doctorate's, what are they doing with them? Don't we really have to train a lot of people below that level? I don't mean at the doctorate level or the master's level, I am talking about the operators, the engineers, and technicians who are going into this area.

TRAINING FOR CAREERS IN ENVIRONMENTAL FIELD IN ILLINOIS

I have just received a copy of the State environmental higher education plan for Illinois, entitled "A Work Force for Environment and Energy." This plan encourages the State to meet its responsibility to provide technical and professional training for young people for careers in the environmental field, especially in areas where shortages of trained people may be developing.

Could EPA encourage other States to develop programs such as this, designed to meet the special needs of each State, and financed as part of the traditional State responsibility for the basic costs of higher education?

It would seem that a relatively small Federal investment here might bring results without encouraging new requests for underwriting the general field of environmental higher education.

What funds would be required to implement such a program?

Mr. ALM. Approximately $350,000 per year for a 3-year period.

Mr. TRAIN. Mr. Chairman, I just happened to pick up the report here. By pure coincidence in the preface I read this paragraph: "When the project was described to officials of the Federal Environmental Protection Agency, Administrator Russel Train directed that the Agency cooperate fully in its development. Alvin L. Alm, Assistant Administrator of Planning and Management and Dr. George Pratt, Director of Education and Manpower Planning, have worked directly with the project."

I am delighted to be able to report that in terms of this project we have been fully engaged.

Mr. BOLAND. But your contribution was not very much. Is it a program that really ought to be implemented?

Mr. ALM. Yes, sir, it very definitely is. By the way, in this particular project we gave not only a fair amount of time but we provided funds to the project itself, and we are extremely pleased with the product of this effort. This is the first time that any State has laid out a comprehensive environmental training effort throughout the whole higher education institution of the State, and we would

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look to other States pursuing the same kinds of efforts. I think it has been extremely worthwhile.

Mr. BOLAND. Will the States do it without any input from the EPA?

Mr. ALM. We would hope so. I think realistically—

Mr. BOLAND. Realistically, no.

Mr. ALM. We probably will have to provide some input.

Mr. BOLAND. How much of an input would be required for this? To implement the program it would take I understand some 3 years to fully implement it and that would be the end of the program at the end of the 3-year period. What would it cost per year?

Mr. ALM. We had a proposal about a year ago from the American Association of Colleges and Universities which would be a very comprehensive review nationally of the kinds of programs that colleges and universities could pursue in evnivronmental training. The estimate at that time I believe was $1.2 million.

WATER QUALITY CONTROL AGENCY SUPPORT

Mr. ROUSH. On page WQ–27 we have control agency support. Here you are indicating a reduction of $11,289,300 down from $45,664,300 in 1975 to $34,375,000 in 1976. I believe that you deferred $5.6 millon that was added by Congress for this program in 1975, so that the actual 1976 level will be close to $40 million; is that correct?

Mr. ALM. That is correct.

Mr. ROUSH. What was your justification for deferring these funds, or did you support the deferral?

Mr. AGEE. We did not support the deferral. Actually, in fiscal year 1975, we had some carryover funds from the previous fiscal year. In fiscal 1975, the support of the State water pollution control agencies was $48,500,000; $8.5 million of this was deferred from 1974 appropriations. We did have a deferral of $6.5 million in 1975 funds and this is the difference between $34.3 and $40 million that is being carried over for fiscal year 1976.

In our budget request to the Office of Management and Budget we did request a program in fiscal 1976 of $60 million. We arrived at that figure by tasking out and costing out all of the activities that we were requesting the States to pick up, such things as assistance in the construction grant program and their planning efforts, assistance in the waste discharge permitting program, monitoring at the State level, these kinds of activities, but we did arrive at a cost at the State level that would support a national program of $60 million for fiscal 1976.

This did not get the concurrence of OMB, and our budget now has $40 million for fiscal 1976.

REQUESTED OF OMB

Mr. ROUSH. In your statement and also in the justifications, we note the increasing role that you are expecting the States to play in implementing various environmental programs. Yet the numbers indicate that you are requesting even less in 1976 than in 1975 for air and water support.

How does your 1976 request to the Congress compare with the request that you made to the Office of Management and Budget?

Mr. AGEE. We requested $60 million and the budget contains $34 million but again $6 million additional is carried over, for a program of approximately $40 million.

CONSEQUENCES OF CUT

Mr. ROUSH. What are the consequences of such a low level of State grant support? Will it have a detrimental impact on environmental quality, in your opinion?

Mr. AGEE. Yes, sir, it will, in what it can be translated into. The States will have less funds to assist in the construction grants program to carry out their planning requirements to support EPA in the waste discharge permitting program. These are some of the areas that will just go unattended at the State level, and put more of a burden on EPA to carry out these activities.

MUNICIPAL SOURCE CONTROL

Mr. ROUSH. On page WQ–29 we have municipal source control. We discussed the people problem earlier, and we don't have any specific questions except that I wonder if you would describe for the committee the various types of projects noted on pages WQ–30 and 31, and tell us why you are shifting much of the responsibility for this work to the States, and if the States are prepared or willing to assume and implement these delegations of authority?

THREE-STEP GRANT PROCESS

Mr. AGEE. I think your first question was the type of projects we have, step 1, step 2, and step 3 projects?

Mr. ROUSH. Yes.

Mr. AGEE. In the construction grant program we have a three-step granting process, step 1 being a facilities plan, a preliminary engineering plan, if you will. That considers the geographic area that would be serviced by a sewage collection and treatment system, the location of the sewage treatment plant, the type of sewage treatment plant, the growth that might be built into that particular plant.

At the end of that step 1 is when the environmental assessment is prepared and evaluated and, in some cases, an environmental impact statement is prepared.

Once that step 1 project is approved, then we move to the step 2 project, which is the development of plans and specifications by a consulting engineer. Those are reviewed at the State level or EPA level, if the State does not have the delegation to do that. Once those are approved, then we move to the step 3 grant, which is the construction stage. That is when the municipality takes the plans and specifications, advertises for bids, lets bids to a contractor and construction proceeds, but we do have the three-step grant process.

Mr. ROUSH. Again somewhat repeating questions of yesterday, but do you have a different criteria for a small community than a large community?

Mr. AGEE. Legally and by regulations we do not. Where we can get to the small community to sit down with them around the table, either a

State man or an EPA man, we can really smooth out that granting process and get a lot of the decisions made and get on with the project, but I think as we cited yesterday, our regional offices in the States have really been giving probably an inordinate amount of time to the larger city projects. That is where the bulk of the money is, more employment can be created, and we are just not giving sufficient attention to the small communities, but our regulations provide for the same thing for the large and small towns.

Mr. ROUSH. In the case of the small community it occurred to me that these three steps could somehow be consolidated, and that you would not have the complex problem of planning, preplanning, and planning construction that you have in the large cities.

Mr. AGEE. As Mr. Train indicated this morning, we will be meeting with the House Public Works Committee next week, and we will discuss this matter with them. It would take a change in the legislation, but we will discuss that matter with them and see what interest they might have in that area.

Mr. ROUSH. Thank you, Mr. Chairman.

INDUSTRIAL SOURCE CONTROL

Mr. BOLAND. On page WQ–35, under industrial source control, you are indicating a decrease of $1.9 million. That decrease is largely associated with the one time 1975 congressional increase of $2 million to support the promulgation of toxic effluent standards under section 307. It was also provided to handle the legal defense of existing effluent guidelines.

Mr. AGEE. Mr. Chairman, we still have yet to effectively implement section 307(a). We have, however, in that general area of municipal source control gone a long ways in developing the effluent guidelines for the industries that are required to do so. We have made very good progress in the last 2 years. We still have some significant amount of work.

Mr. BOLAND. But you are using the $2 million for the purpose for which it was intended.

Mr. AGEE. Yes, sir.

Mr. BOLAND. On the question of legalities, we understand that you are inundated by suits from industry challenging your regulations and guidelines. What is the current legal and court situation on industrial source control?

Mr. AGEE. I would like to defer to our general counsel.

Mr. JOHNSON. We will answer that in two ways, Mr. Chairman. One is with respect to the effluent guidelines and with respect to the permits issued.

With respect to the permits that have been issued, I think it will sound much more encouraging.

Of 3,000 major industrial permits which have been issued for the 3,000 largest industrial polluters in this country, approximately 2,600 have been issued without contest. Those permits are now in effect and treatment plants are being constructed. Approximately 400 are being contested by the industry.

The situation with the guidelines is a little different and Mr. Zener can perhaps give you that information.

Mr. ZENER. With respect to the guidelines, Mr. Chairman, we have our 200 suits. That figure may sound a little inflated because a lot of those suits are consolidated. Approximately 20 of the effluent guidelines have been subject to suits. All of those suits are pending at the present time. However, in no case that I am aware of has the implementation of the effluent guidelines been stayed as a result of suits, so that the suits are not hampering the implementation of the program.

Mr. TALCOTT. Who files those kinds of suits? Are these industry suits?

Mr. ZENER. In all cases except one they are industry suits.

NONPOINT SOURCE CONTROL

Mr. BOLAND. On page WQ-38, nonpoint source control, you are requesting $1,600,000. This is about the same level as the 1975 request. You described nonpoint source pollution as a significant portion of the total water pollution load of the water to the Nation.

How much did you request from OMB for this activity?

Mr. AGEE. We requested the same level of funding as in 1975.

Mr. BOLAND. At the current level, can you expect to meet the 1983 goals of the Federal Water Pollution Control Act?

Mr. AGEE. We are certainly going to do our very best. We have deferred, on a priority basis, nonpoint source and given primary attention to the point source control program across the country. Our nonpoint source control efforts have been to utilize what research we have, translate this research into guidelines and reports, how-to books, if you will, that will lead to better agricultural practices, better mining practices, better agricultural sediment control practices, and these kinds of things.

This is where our attention has been and will continue in fiscal 1976.

Basically we will really start implementing a nonpoint source control program probably in fiscal year 1977 or 1978. I mentioned the 208 planning program that we have, where we will have some 200 or more regional planning agencies underway in another year or so. Beyond that, the States have to have a 208 planning process for all undesignated areas.

One of the primary purposes of these areawide agencies along with the States is to identify the nonpoint source control efforts that would be required to meet the water quality standards across the country. We expect that this planning done at the State and local levels will be underway by 1977, with some of it continuing into fiscal years 1978 and 1979. At that point, we will start implementing the nonpoint source program across the country, giving us 2 to 3 years to meet the 1983 goal.

WATER QUALITY ENFORCEMENT

Mr. BOLAND. We will turn to water quality enforcement, page WQ-48.

You are requesting $21,293,500. This is a reduction of $2,771,300 from 1975, and it corresponds with an associated reduction of 146 positions in this area. We discussed this a bit under the general ques-

tions, about why you were proposing a decrease when you still have a number of permits to issue.

I want to ask you a question or two about the permits and how many have to be issued.

Altogether, including both industrial and municipal, and including both major and minor polluters, how many permits must be issued?

Mr. JOHNSON. The current figure on file, Mr. Chairman, is around 54,000. That may go up over a period of time but that is what we have in-house at the moment. Of those we have issued around 30,000, 60 percent to date. By the end of this fiscal year that figure will be up to around 35,000.

Mr. BOLAND. When will the job be finished?

Mr. JOHNSON. I think the job should be finished during fiscal year 1976.

Mr. BOLAND. As you turn over the national pollution discharge elimination system authority to all qualified States, will this appropriation continue to decline?

Mr. JOHNSON. Yes, sir, ideally it should. The rate at which it declines may not be the same, because there are some irreducible minimums here that we have to protect. We obviously have to have some Federal involvement in every State even after we turn it over. That is what the statute contemplates, but there is some potential for further decrease in the budget authority here.

Mr. BOLAND. Who will police compliance, the States or EPA?

Mr. JOHNSON. Each State and each regional office responsible for that State have a written agreement that specifies who will survey which dischargers, and then each of them have the authority to take enforcement actions. Basically, where the State has the program, they will be doing 70 or 80 percent of the work and we will be doing 20 percent, let's say. Where we have the program the figures may well be reversed.

WATER QUALITY RESEARCH AND DEVELOPMENT

Mr. BOLAND. We will turn to research and development. You are requesting an increase of $1 million under processes and effects and a decrease of $2.4 million under control technology, for a net decrease of $1.4 million in this appropriation.

I want to refer for a minute to a paper prepared by the Water Pollution Control Federation and entitled "Research and Their Quest for Clean Water."

The paper concludes that:

> Today's treatment technologies on which the private and public sectors are spending billions of dollars annually are expensive and often incapable of effecting levels of pollutant removal that protect water quality. Sludge disposal continues to be the Achilles' heel of the treatment cycle as municipalities have increasing difficulty in disposing of growing amounts of sludge in an environmentally acceptable manner.

The Federation goes on to point out that the dollars available for research for water treatment are woefully inadequate and, in fact, that for sludge disposal alone, which many municipalities rank as a top priority in water pollution control, funding has declined from $2.6 million in fiscal year 1968 to $668,000 in fiscal year 1973.

What exactly are you proposing to spend for sludge disposal research in this year's budget?

Dr. TALLEY. It will be something less than $2 million.

Mr. BOLAND. Are the comments of this Federation reasonable, in your view, and are we spending enough money on research, particularly in the area of sludge removal and disposal?

Dr. TALLEY. In general I would have to agree with the comments. I would also like to point out that we have more technology on the shelf than is being utilized, that there is need to increase our demonstrations as well as continuing to do research and development.

CONSTRUCTION GRANTS

Mr. BOLAND. We will turn to construction grants, page WQ-63.

This displays the appropriation to liquidate the contract authority for wastewater treatment facilities.

In 1976, you are requesting $500 million to liquidate contract authority for this account. This is a reduction from $1.4 billion in 1975.

Is the $500 million sufficient, based on your current estimate and given the Supreme Court's decision?

Mr. ALM. Yes, that is sufficient. We are carrying over $1,500,000,000 so the total availability will be sufficient.

Mr. BOLAND. We will adjourn until 9:30 tomorrow morning.

THURSDAY, MAY 8, 1975.

Mr. BOLAND. The committee will come to order.

WATER SUPPLY

We turn to water supply, and we will place pages WS-1 through WS-20 in the record at this point.

[The pages follow:]

Water Supply

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$3,036,800	$19,860,900	+$16,824,100
Enforcement....	...	100,000	+ 100,000
Research and Development..	4,762,000	12,364,200	+ 7,602,200
Total.....	7,798,800	32,325,100	+ 24,526,300
End-of-Year Employment			
Abatement and Control.....	94	175	+81
Enforcement....	...	5	+ 5
Research and Development..	64	75	+11
Total.....	158	255	+97

Overview and Strategy

The original statutory authority of the water supply program was granted under the Public Health Service Act and the Interstate Quarantine Regulations. With the passage of the Safe Drinking Water Act (an amendment to the Public Health Service Act) last December, the water supply program was significantly changed. This law provides for the safety of drinking water supplies throughout the United States through the establishment and enforcement of national drinking water regulations. These regulations will be established by the Federal Government and will provide standards which specify the constituent levels required to protect the public health. Furthermore, the Safe Drinking Water Act (P.L. 93-523) provides the mechanism by which States may ensure compliance with these regulations by establishing their own programs with the aid of grants from the Federal Government.

A strong Federal-State cooperative effort is necessary

to successfully achieve the objective of the Safe Drinking Water Act. Failure of the States to implement the provisions of the Safe Drinking Water Act would place an additional burden on the Agency's resources for this program, since the Environmental Protection Agency is empowered and directed to take action should an imminent and substantial health hazard develop in drinking water supplies. Therefore, to achieve the objective of the Act, the Agency's water supply program will be working closely with the States in many areas.

The abatement and control and research and development programs are the major EPA programs charged with implementing the Safe Drinking Water Act. The abatement and control program is implementing provisions of this Act by preparing national primary and secondary drinking water regulations, State program regulations, and underground injection control regulations. In addition to establishing regulations, this program will also be involved in carrying out numerous studies and surveys covering carcinogens in major metropolitan drinking water supplies, quantity and quality of rural water supplies, underground injection wells, and means of controlling waste disposal that may pollute underground sources of drinking water. Other mandates of this Act call for an aggressive technical assistance program to assist States in developing their own enforcement programs and other programs involved with the control of underground injection of contaminants. To facilitate these efforts, grants will be made available to States in both 1976 and 1977 to assist in these State programs.

The water supply research and development program will continue to provide research on the effects of water quality on human health, the development of analytical methods for assessing quality of drinking water, and continued development of water treatment methods for undesirable contaminants in water supplies for which current methods are ineffective. With the enactment of the water supply legislation, the research and development program will be recommending maximum contaminant levels in public water supplies; conducting research into underground water supplies with emphasis on injection wells, pesticides and fertilizers from surface discharge and/or disposal; expanding studies concerning carcinogens in drinking water; and conducting surveys and studies on rural water supplies and underground waste disposal.

Other activities which will be undertaken by research

and development will be in the areas of water health effects and water supply control technology. The major objective of the water health effects program will be to develop valid criteria for setting water quality standards for drinking purposes. It will also provide for the development of scientific knowledge necessary for establishing standards for organic and microbiological contaminants of drinking water.

The primary purpose of the water supply control technology program is to evaluate, improve, and develop control technology necessary to economically attain the standards developed for drinking and recreational water. This involves both the adaptation of large-scale technology to small water supply systems and the development of new or special technologies.

The water supply enforcement program will be initiated this year. Staff and resources will be used to respond to emergency situations under the authorities granted in Section 1431 of the Safe Drinking Water Act and to provide backup assistance in the establishment of regulations.

Summary of Increases and Decreases

1975 Water Supply Program.....	$ 7,798,800
Abatement and Control.....	+$16,824,100
The increase is for development of a viable water supply program in order to meet the mandates of the Safe Drinking Water Act. Resources will be used to develop, maintain, and fund grant programs for underground injection and State program development. Additional resources are also requested for technical assistance in order for EPA to assist the States in developing State programs and underground control programs through the interpretation of the attendant regulations and guidelines; aid in the development and completion of the carcinogen study and rural water survey; provide additional information to States, local utilities, and private organizations on the provisions of the Act; and implement other provisions of the Act.	
Enforcement.....	+ 100,000
The increase will establish a minimum agency capability for enforcing the mandates of the Safe Drinking Water Act.	
Research and Development.....	+ 7,602,200
The increase will provide additional resources for health effects research and control technology research.	
1976 Water Supply Program Request.....	32,325,100

Water Supply
Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control			
Technical Assistance....	$3,036.8	$9,860.9	+$6,824.1
State Program Grants....	...	10,000.0	+10,000.0
Subtotal.....	3,036.8	19,860.9	+16,824.1
Enforcement			
Water Supply Enforcement	...	100.0	+100.0
Research and Development			
Processes and Effects...	3,448.3	9,399.8	+5,951.5
Control Technology.....	1,313.7	2,964.4	+1,650.7
Subtotal.....	4,762.0	12,364.2	+7,602.2
Total.....	7,798.8	32,325.1	+24,526.3
End-of-Year Employment			
Abatement and Control			
Technical Assistance....	94	175	+81
State Program Grants....	...	...	...
Subtotal.....	94	175	+81
Enforcement			
Water Supply Enforcement	...	5	+5
Research and Development			
Processes and Effects...	44	52	+8
Control Technology.....	20	23	+3
Subtotal.....	64	75	+11
Total.....	158	255	+97

Water Supply

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Technical assistance...	$3,036,800	$9,860,900	+$6,824,100
State Program Grants.....	...	10,000,000	+10,000,000
Total.....	$3,036,800	19,860,900	+16,824,100
End-of-Year Employment			
Technical assistance...	94	175	+81
State Program Grants.....	...	...	...
Total.....	94	175	+81

Purpose

The water supply abatement and control program directs the national effort to ensure the safety of the Nation's drinking water. Prior to the enactment of the Safe Drinking Water Act, the major program activity was the annual certification of approximately 700 interstate carriers. With the passage of this legislation, the activities of this program have been expanded to include promulgation of regulations required to protect the public health and welfare; studies and surveys to evaluate various aspects of water supplies; technical assistance to the States, local utilities, and private organizations to assist implementation of the provisions of the Act; and establishment of two grant programs to assist the States in implementing mandates of this Act.

In 1976, program emphasis will be placed on developing a strong Federal-State relationship. Regulations will be established by the Federal government and through these regulations, States will be provided with the mechanism to assure the safety of the Nation's drinking water. To encourage and enable the States to qualify for primary enforcement authority, grant programs have been established. It is expected that most States will be able to accept primary enforcement by mid-1977 when the interim primary drinking water regulations become effective.

Water Supply

Abatement and Control

Technical Assistance

	1975	1976	Change
Technical assistance.....	$3,036,800	$9,860,900	+$6,824,100

1975 Program

Technical assistance encompasses the activities required to direct the national effort to assure the safety of the Nation's drinking water. The primary activities for this program under the Safe Drinking Water Act include development of regulations covering primary and secondary drinking water standards, State program and underground injection control; comprehensive studies on organics and underground injection of contaminants; surveys of the quality and quantity of rural water supplies; and dissemination of information to the States, local utilities, and private organizations on the provisions of the Act and the attendant regulations and guidelines.

Previous activities, which will continue, include the annual certification of all drinking water supply systems serving interstate carriers, development and maintenance of a comprehensive inventory of public and Federal recreational facilities water supply systems, and technical assistance to the States to improve water supply systems and programs.

During 1976, technical assistance will continue to develop and promulgate regulations; provide assistance to States, local utilities, and private organizations on provisions of the Act and attendant regulations and guidelines; complete studies and/or surveys on the quality and quantity of rural water supplies, underground injection of pollutants, waste disposal and means of control, and maximum safe levels of contaminants in drinking water; aid in the development of State programs; establish the mechanism for program grants; and aid in the awarding of program grants to eligible States.

1975 Accomplishments

- Certification of 700 interstate carrier water supply

- systems;
- Completion and publication of an inventory of water supply systems serving a resident population;
- Promulgation of the interim primary drinking water regulations;
- Preparation of the interim report on the comprehensive study of carcinogens in drinking water supplies;
- Proposed State program and underground injection regulations;
- Publication of a list of States requiring underground control programs;
- Preparation of the annual report to Congress on the Safe Drinking Water Act;
- Initiation of National Academy of Sciences study on the maximum safe level of contamimants found in drinking water supplies
- Collection of information on existing grant regulations;
- Collection of information needed for determining equitable grant allocation factors;
- Development of a funding formula for public water systems supervision programs;
- Development of a funding formula for underground water source protection programs;
- Publication of proposed State program regulations;
- Publication of proposed underground injection control regulations;
- Development of grant application procedures for underground water source protection grants;
- Development of trant application procedures for public water systems supervision program grants;
- Proposing of draft regulations for both types of grants; and

- Publication of proposed guidelines for grant application procedures and definition of acceptable activities for each type of program.

1976 Plan

- Promulgate State program regulations;
- Promulgate national secondary and underground injection regulations;
- Complete studies of rural water supplies;
- Complete a study and survey of waste disposal and means of control of substances which may endanger underground water supplies;
- Develop a State ADP system;
- Complete the validation of inventories of water supplies serving the traveling public;
- Develop additional standards and guidelines for constituents found in drinking water as research data become available;
- Certify 700 interstate carrier supply systems;
- Review and approve State primacy applications within 90 days of receipt as provided by the law. Provide guidance and assistance to the States on primacy requirements and procedures for submitting applications;
- Review and approve State plans submitted for an underground injection control program. Provide guidance and assistance on State program plan requirements;
- Review and approve applications for 1976 State program grants;
- Review and approve applications for 1976 underground injection control grants;
- Review entire grant program for unexpected problems and develop revised program for 1977;

- Improve information on:

  * number of public water systems,

  * cost of conducting a public water systems supervision program, and

  * cost of conducting an underground water source protection program;

- Revise the funding formula for both types of grants for 1977 as experience dictates;

- Revise grant application procedures for 1977 as experience dictates; and

- Prepare the Annual Report to Congress on the implementation of the Safe Drinking Water Act.

Purpose of Increase

The increase for FY 1976 is to provide funds for the implementation of the Safe Drinking Water Act.

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Water Supply

Abatement and Control

State Program Grants

	1975	1976	Change
State primacy grants..	...	$7,500,000	+$7,500,000
Underground injection control grants.....	...	2,500,000	+2,500,000
Total.....	...	10,000,000	+10,000,000

1976 Program

Section 1443 of the Safe Drinking Water Act provides a means to strengthen the cooperative relationship between Federal and State agencies by awarding State primacy grants and underground injection control grants in both 1976 and 1977. State primacy grants will be awarded to encourage and enable States to assume primary enforcement responsibilities to carry out public water system supervision programs by the effective date of the primary drinking water regulations. Similarly, underground injection control grants will be awarded to States to help provide the means for them to assume primary enforcement responsibilities for the protection of underground water sources by the effective date of the Underground Injection Control Regulations.

1976 Plan

- Support State primacy programs, and
- Support State underground water source protection (underground injection control) programs.

Purpose of Increase

The increase in 1976 is to provide grant funds for the implementation of the Safe Drinking Water Act.

Water Supply

Enforcement

	1975	1976	Increase or Decrease
Budget Authority			
Water Supply Enforcement.....	...	$100,000	+$100,000
End-of-Year Employment			
Water Supply Enforcement.....	...	5	+5

Purpose

The Safe Drinking Water Act provides that the States are to have primary responsibility for enforcing the drinking water regulations, with Federal authority to be exercised only when States fail to act. The regulations are not enforceable, however, until December 1976. The basic relationship holds for underground injection control programs also.

1976 Plan

The resources provided herein will support such EPA regional enforcement activity as may be required (1) during emergency situations (Sec. 1431); (2) in the implementation of interim regulation of underground injections (Sec. 1424); or (3) with regard to records, monitoring, and inspection requirements (Sec. 1445).

These resources will also support the development of the enforcement elements for regulations and procedures relating to the following:

- Application and approval of programs for State primary enforcement responsibility;
- Quality control and testing procedures to assure compliance with drinking water regulations;
- Public water systems records, reports, monitoring, and information and inspection requirements;

- Variances and exemptions;
- Public notification of failure to comply with drinking water regulations;
- State underground injection control programs; and
- Interim underground injection regulation.

Purpose of Increase

This increase will provide the basis for EPA's water supply enforcement program and will allow us to begin to assist the States in the development of enforcement activities.

Water Supply

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and Effects.....	$3,448,300	$9,399,800	+$5,951,500
Control Technology.....	1,313,700	2,964,400	+1,650,700
Total.....	4,762,000	12,364,200	+7,602,200
End-of-Year Employment			
Processes and Effects.....	44	52	+8
Control Technology.....	20	23	+3
Total.....	64	75	+11

Purpose

The water supply processes and effects program provides for research on the effects of water quality on human health and the development of analytical methods for assessing the quality of drinking water. The major objective of the water health effects program is to develop valid criteria for setting water quality standards for drinking water. This program will also provide for development of scientific knowledge necessary for establishing standards for organic, inorganic, and microbiological contaminants of drinking water.

The primary purpose of the water supply control technology program is to evaluate, improve, and develop new control technology necessary to economically attain the standards for drinking water. Attainment of this goal involves both the adaptation of large-scale technology to small water supply systems and the development of new or special technologies.

Water Supply

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects.....	$3,448,300	$9,399,800	+$5,951,500

It is the intent of EPA to issue drinking water standards or guidelines. Valid health effects data need to be developed if these standards are to protect the public health without being unnecessarily stringent.

1975 Program

The scientific basis of the proposed EPA drinking water standards for organics, lead, manganese, cadmium, nitrate, barium, and arsenic will be strengthened. Health effects data will be generated for contaminants that are not on the proposed drinking water standards list but are of potential health significance (asbestos, silicate, selenium, molybdenum, antimony). Research will be initiated to determine the suitability of reusing highly treated municipal or industrial effluents as a water supply source. A sensitive analytical method will be developed for benzidene and development of techniques for asbestos will be pursued.

1975 Accomplishments

- Studies are in progress on acute toxicity of organic compounds concentrated from tap water by semipermeable membrane processes;

- Additional health effects data have been provided related to the nitrate problem in drinking water. Based on the information, it is recommended that the standard for nitrate not be raised above its present level;

- A report was completed on virus occurrences in 10 water supply systems; and

- A survey to determine the nature and concentration

of organic compounds in drinking water has been initiated for a variety of water supplies. A method for benzidene will be available by the end of the fiscal year.

1976 Plan

Many toxic and carcinogenic substances are of concern at concentration levels below one part per billion, requiring an increase in sensitivity of the methods now being applied. To meet these requirements, special concentration and separation techniques must be developed. The present methodology for organics is applicable to volatile compounds only, thus detecting only about 2 percent of the total organic content. An increased effort to develop methods for nonvolatile organics will be undertaken. Procedures for the identification of the sources of water supply contaminants will be developed.

There will be an increased effort in the development of virus detection methods and rapid instrumental methods for detection of toxic elements.

To carry through and complement current program objectives in 1976, EPA intends to continue or initiate studies to determine the health effects of organics, tin, manganese, cadmium, arsenic, selenium, barium, molybdenum, antimony, nitrates, and asbestos. The Agency also believes it will be necessary to expand significantly the water supply health effects research program in the area of organics.

Ecological processes and effects studies will be undertaken to determine the extent and nature of groundwater contamination stemming from abandoned extraction and injection wells, intensive application of pesticides and fertilizers, and the surface disposal of contaminants in underground water recharge areas.

Purpose of Increase

A total increase of $5,951,500 and eight positions is requested: $500,000 to support studies of the health effects of wastewater reuse, and $5,451,500 and eight positions for research in direct support of the Safe Drinking Water Act.

An increase in the ecological processes and effects program will be used to study the nature and extent of the impact on underground water of: (1) abandoned injection or

extraction wells; (2) intensive application of pesticides and fertilizers; and (3) surface disposal of contaminants in water recharge areas. Research also will be conducted to determine methods of protecting underground drinking water sources. Studies will evaluate the formation pressure increases attributable to underground injection, develop a model capable of predicting and estimating the impact of such increases, and determine the effects of pressure increases on waste migration.

Increased effort in the water monitoring program will aim at the development of practical techniques for the identification, measurement, and determination of sources of contaminants (particularly organic substances and viral agents) in drinking water. The techniques will be designed for use by State and local public health officials charged with responsibility for safeguarding public drinking water supplies.

Defensible health effects data will be developed for organic, inorganic, and microbiological contaminants of drinking water through the conduct of short and long term toxicological studies and through comparative epidemiological studies of populations exposed to high and low levels of contaminants.

Water Supply

Research and Development

Control Technology

	1975	1976	Change
Control technology.....	$1,313,700	$2,964,400	+$1,650,700

Passage of the Safe Drinking Water Act requires EPA to issue drinking water standards. Clearly, standards cannot be proposed where adequate methods of control are lacking.

1975 Program

The water supply control technology program is developing technology for the removal and/or inactivation of the following contaminants: organics, arsenic, asbestos, barium, mercury, nitrates, cadmium, chromium, lead, radium, selenium, turbidity, bacteria, and virus. Water treatment methods are being developed to prevent deterioration of water quality during storage and distribution of drinking water (e.g., prevention of bacterial regrowth in water supply conduits and prevention of lead dissolution from old lead pipings). The amount of asbestos leached from asbestos-cement pipes will be determined.

1975 Accomplishments

- Tests were completed on effectiveness of copper sulfate and potassium permanganate for disinfecting newly installed water mains--neither of which were found to be as effective as chlorine;

- Tests have been completed demonstrating that arsenic and selenium are removed effectively in the oxidized or reduced state using the process of reverse osmosis. Reverse osmosis thus may be a successful concentration technique to remove these contaminants effectively and economically;

- It has been shown that ozone alters organic compounds but the oxidation is not necessarily completed to carbon dioxide and water--this implies possible new toxicity problems;

- Pilot plant studies have been completed showing good removal of methyl mercury with either virgin or exhausted granular activated carbons; and

- Asbestos-like fibers are being removed from the Duluth, Minnesota, water supply in a pilot facility using granular media filtration and diatomaceous earth filtration.

1976 Plan

EPA is planning to continue or to initiate studies for removal and/or inactivation of cadmium, chromium, lead, asbestos, nitrate, radium, organic compounds, bacteria and viruses. We also feel that alternate methods of chlorine disinfection should be thoroughly studied in this next fiscal year. As a continuation of the 1975 program, the Agency intends to determine how to prevent water quality deterioration during distribution of drinking water. Technology that is applicable to small water supply systems will be emphasized.

Purpose of Increase

An increase of $1,650,700 and three positions is requested to provide additional research efforts in support of the Safe Drinking Water Act requirements. A substantial effort will be aimed at controlling organic contaminants in drinking water. The mechanism of formation of halogenated organics through normal disinfection practices will be determined and methods of control will be developed. Alternate methods to chlorine disinfection will be thoroughly investigated. Candidate disinfectants are ozone and ultra violet light.

SAFE DRINKING WATER ACT

Mr. BOLAND. Under this function, for the three appropriations, EPA is requesting $32,325,100, an increase of $24,526,300 above the 1975 level of $7,798,800. This is an area in the EPA budget where you are putting your largest increase for fiscal year 1976. In fact, the 97-position increase that EPA is carrying in this budget is entirely allocated for this activity of water supply.

There is an obvious reason for it, of course, the Safe Drinking Water Act which was passed in late December last year. I note that you were doing work in this area of the water supply at about a $7.8 million level in 1975.

I wonder if you could comment, from an environmental viewpoint, whether you feel that the Safe Drinking Water Act was a necessary piece of legislation and secondly, whether in terms of health priorities, putting all of your 1976 increase into implementing this act makes sense?

Mr. TRAIN. Yes, Mr. Chairman.

First, we fully supported and do support the action of the Congress in providing the Safe Drinking Water Act. I think it was our assessment, going back a good many months, that stronger legislative authority for the Agency in terms of drinking water was a very high priority need. It has become increasingly apparent to us and others working in the drinking water area that there are a growing number of problems related to the safety and general quality of the drinking water, both surface and underground across the United States. We have been familiar over the years with bacteriologically related problems, disease problems, which have largely come under rather effective control in this country, although I think we are beginning to run into a few new problems in that area.

NEW CONTAMINANTS IN DRINKING WATER

But there are a whole variety of new problems related to chemical contaminants which are being identified in drinking water supplies which are giving rise to very substantial health concerns.

Mr. BOLAND. Have a lot of these contaminants been discovered relatively recently?

Mr. TRAIN. We, in a sense, have to speculate about this. Some of them we know are very recent.

When we identify dieldrin, we know dieldrin was only formulated in the mid- or late 1950's. To be fair about it, we have only recently developed the kind of measurement technologies which permit us to identify these relatively low levels of chemical contaminants.

These measurements were simply not performed a number of years ago so we cannot say with assurance exactly what was in the water years back. However, I think it is a safe assumption that many of these contaminants, vinylchloride being another one, are of relatively recent formulation and use, certainly in large quantities in the chemical industry.

I would think it is safe to assume that many of these contaminants are of recent origin. In other words, the problem is getting worse.

PRIORITY OF WATER SUPPLY PROGRAM

Mr. BOLAND. Since your substantial increase is in this function, do you apply a higher priority to this activity than some of the other activities in which EPA is engaged?

Mr. TRAIN. I think that is always a difficult question to answer, as you know. I think that with the allocation of the 97 additional places and the $24 million-plus of funding added to this program that that level of funding adequately matches the priority in relation to other programs within the Agency at this time. I would surely foresee that as we develop more information and as the program matures some more resources may be needed in years ahead. But in terms of our current needs I think that the program is funded and has the staffing reasonably approximating the priority which I think we have to give it.

Jim, would you have any different thoughts on that?

Mr. AGEE. Yes.

As far as priorities to other programs, it is really a balance we are trying to establish. The water supply efforts in this country have been relatively unattended for a good many years. At one time the State health departments assumed a high priority for water supply particularly when we had communicable disease problems, but in the last 10 years or so the water supply program in the State level have been going downhill. They have not been keeping pace with the problem. Some of the studies we have conducted about the quality of drinking water across the country showed a rather significant need to have a more aggressive kind of water supply program.

Prior to the safe drinking water passage our principal efforts were in the interstate carrier water supplies.

We have the specific responsibility and it originated in the Public Health Service quarantine legislation. Those were the only water supplies given any particular attention.

SEVERITY OF PROBLEM

Mr. BOLAND. Is the problem severe now, as compared with other pollution problems?

Mr. TRAIN. Yes; it is a severe problem.

Mr. BOLAND. Now?

Mr. TRAIN. Now.

Mr. BOLAND. Does the research support the conclusion that this is a serious problem now?

Mr. TRAIN. We know enough about what we are finding in the water to have the basis for concern within the agency and we know enough to support a fair level of public concern. Of course, this has occurred. But we have been, and I have said quite straightforwardly that we do not know enough about the health significance of these low levels of contaminants in drinking water to make an appraisal of what may be needed in the way of additional treatment at this time or indeed in terms of better control over some of the sources of these contaminants. This is a job that we have underway at this time. So we do not have all the answers at present. I should add one other point in terms of the priorities.

The implementation of this act, utilizing these 97 additional positions is really mandated by the Congress in the recent enactment of the Safe Drinking Water Act.

Mr. BOLAND. One of the things that puzzles me is whether or not we ought to complete the research before we start to get into the expenditure of a lot of money in abatement, control and the other functions that you have here, technical assistance.

Why can't you complete the research first and determine exactly how serious the problem is?

Mr. TRAIN. Well, this is the first step that we have had underway. We have been doing the sampling of, the initial sampling of some 80 water supplies around the country, geographic spread by type all across the country.

We are doing 10 comprehensive surveys of specific water supply systems, just to provide that kind of base information.

FUTURE INCREASES FOR WATER SUPPLY PROGRAM

Mr. BOLAND. You have an increase of $24 million in the water supply program this year. What do you think it will be in fiscal year 1977? What will the $32 million figure for 1976 increase to in 1977?

Mr. TRAIN. Let me ask Mr. Agee to address two aspects of this. First, this last question which the Chairman has asked and also I would like to have you expand somewhat more upon how we are actually utilizing the resources that we propose in this budget.

In other words, we are not really proposing to get into the funding of treatment facilities and things of that sort. I think we are proceeding in terms of first things first, so to speak.

Jim, could you expand on this?

Mr. AGEE. Mr. Chairman, in answer to your first question, what would be our budget requirements for additional years, 1977 and beyond, we really cannot assess that at this point in time. One of our big needs, and I think dollar significant needs, is in health effect research dealing with water supply.

We do have a significant increase in our budget for fiscal 1976 in that general area. We need research both on health effects and one other aspect of it, water supply treatment technology. The whole game plan laid out by the Congress in the legislation provided for a number of steps. The first step that is laid out is to really develop a monitoring plan across the country to find out what is in the water. We know that we have some strong suspicions of toxic materials in public water supplies but that is the first effort we will undertake with the States to monitor and not have a requirement that municipalities upgrade their treatment at the onset.

Only after we find out the level and have completed the research to really zero in and find the need before we start abating through treatment works at the municipal level.

WATER SUPPLY SURVEY

Mr. BOLAND. The Administrator released a survey on April 18 indicating that in 79 cities, at least in those, there were organic contents in the water supply.

Was that the total number of cities that were surveyed or was that just part?

Mr. AGEE. That was a special survey that Mr. Train directed.

Mr. BOLAND. Addressed to just those 79 cities.

Mr. AGEE. To 80 cities in total.

Mr. BOLAND. What do you think you would have found out if you surveyed all the cities?

Mr. AGEE. I think we would have found, after reviewing the data from 79 cities, that we will find comparable levels of these organic materials in the water supplies generally across the country. We had 80 cities but one was flooded and we could not test it.

We were looking in that survey to find out where some of these organic products were coming from, whether coming from only contaminated sources with industrial or agricultural discharges, but also natural water quality. We did find that even in natural water quality, coupled with chlorination that it does produce some chlorinated materials that are a threat to us.

Mr. TRAIN. I might add that with regard to a fair number of these contaminants, although we do not have a final fix on the actual health significance of those particular levels, we do know them as either carcinogens or as suspected carcinogens about which there is a good deal of public concern. It will be maybe 2 or 5 years, or maybe never actually, before we have a really clear determination as to the full extent of what the health problem may be.

But with a number of these contaminants current technology is available, much of it at low cost, simply modification of existing facilities in fairly modest respects, that can deal with these particular contaminants if the local community would like to do it. It seems the better part of wisdom not to sit back simply and wait out a full 5-year research program which may not even at that point produce all of the answers, before providing the kind of technical assistance and advice requested by local communities to assist them in dealing with these problems.

SAFETY OF WATER SUPPLY SYSTEMS

Mr. BOLAND. With respect to the survey, do you think the survey proved that our water supply systems are safe or unsafe?

Mr. AGEE. I think it raised a question and raised doubts for us as to the safety of a good many water supply systems in the country.

We are not in a position to say they are unsafe. Certainly they are not unsafe for short-term consumption from these water supplies. We do have some real concern about long-term consumption of these water supplies with these organic and other carcinogenic or potential carcinogenic materials in them. So we are concerned about the long-term exposure and consumption of these waters. We are not so concerned that we feel we need to take directive action immediately.

Mr. BOLAND. You are not going to find that out overnight anyway. It will take a long time to determine what the health effect is upon an individual.

Mr. AGEE. Yes, sir.

In the drinking water legislation is a very significant portion dealing with the protection of underground aquifers. Roughly half of our people consume water from underground sources. There is part of this

legislation that provides for protection of these underground aquifers from surface discharges. Also our plan to implement this has a direct relationship to the water pollution control program.

As we can identify these toxic materials coming from industrial or agricultural sources, we will have an opportunity to keep these from getting into the surface water, for example, and then not put the burden of treatment on the community water supplies.

NEW ORLEANS WATER SUPPLY SYSTEM

Mr. BOLAND. A survey with respect to the New Orleans Water supply system indicated there was a high content of chloroform in the water.

Mr. AGEE. Yes, sir.

Mr. BOLAND. I presume it was put in to purify the water.

Mr. AGEE. Part of the chloroform, and we suspect more than we can prove at this time, comes about by the chlorination process we use for disinfection of public water supplies. The chlorine reacting with antecedent organic materials in that water supply and from some of these products.

We have not got our research and evaluation down to the point that we can quantify that.

Mr. BOLAND. I would think the survey of the New Orleans water supply system would have indicated whether or not the chlorine was dangerous to health. I assume the chlorine used in the system was used to purify the system.

Mr. AGEE. Yes; for bacterial infection.

Mr. BOLAND. Is there any substitute for chlorine?

Mr. AGEE. No, sir, not now. We have one or two plants that use ozone. Ultraviolet light can be used as a disinfecting agent but generally in this country we have relied almost exclusively on chlorination.

Mr. BOLAND. Mr. Talcott.

ADDITION OF MATERIALS TO PUBLIC WATER SUPPLIES

Mr. TALCOTT. Do you perceive your responsibility to be to remove contaminants from the water or do you perceive it to be your authority and your responsibility to improve upon nature by adding things to the water like chlorine and fluorides or something else that comes down the line that some people might think are good for them?

Do you have a positive responsibility, that you must start adding things to water and if so, what kind of a program do you have for doing that? What do you anticipate the costs will be?

Mr. AGEE. Generally we have not had much success on improving on Mother Nature. The fluoridation program has been in public water supplies at the State and local levels for a good many years and has proven to be a very effective way of reducing the number of dental caries we have.

This is a very effective addition of material that has been very effective in that way.

Some additions that we have made to public water supplies have been to obviate some of the esthetic aspects of water such as hardness,

calcium-magnesium, soap hardness. By treating this you can treat these materials and have less objection to the water.

These kinds of esthetic improvements are not in our proposed standards at this time.

The legislation provides for us to adopt esthetic criteria but not as mandatory requirements that the water purveyors would have to install.

Mr. TALCOTT. If somebody besides a dentist got the idea that by putting something in the water you could improve something we do, you would not consider that your responsibility to start using the water supply as a medium for carrying out some social or medical or economic policy, would you?

Mr. TRAIN. No.

Mr. TALCOTT. Thank you. I greatly appreciate that emphatic answer.

WATER-CARRIED EPIDEMICS

For some 200 years we have survived in this country without a serious water-carried epidemic and without EPA. Isn't that pretty true?

Mr. AGEE. We have survived without having a significant water supply program. I would not say that we have not had epidemics.

I think of the major epidemics we have had around the turn of the century, typhoid outbreaks and other problems coming through the drinking water supply. In recent years we have had minor outbreaks generally of an enteric nature, like dysentery, where we have a direct contamination from human sewage.

Mr. TALCOTT. You think through EPA you can avoid those temporary spontaneous local epidemics?

Mr. AGEE. Not EPA. I would say through the State and local municipalities. I think the legislation provides for the State assumption of these programs. That is the challenge we have in EPA.

STATE RESPONSIBILITIES IN WATER SUPPLY

Mr. BOLAND. I think that is where the thrust ought to be. I think we all agree to that. It would seem to me that is a State and municipal responsibility.

You point the problem out. You say this is what the contaminant is the water supply, that is fine, but it is their job to clean it up.

Mr. TRAIN. The Drinking Water Act is not really framed in terms of a Federal responsibility for treatment of drinking water supplies. That responsibility is left at the State and local level, primarily in fact at the local level.

There is no funding provided for the construction of treatment facilities. This is intended not to be a Federal function.

I devoutly hope it never becomes a Federal function.

Mr. TALCOTT. It is different than air.

Mr. BOLAND. If it became a Federal function the cost would be rather high, too, would it not?

Mr. TRAIN. It could be very large, obviously. It recognizes that the Federal Government has a capacity for research in the problems and a capacity for monitoring and identification of problems on a nation-

wide basis that is not present typically at State and local levels. The Congress has decided that there should be minimum national health standards for drinking water to be met by State and local governments through their own programs, through their own treatment processes, and enforced to the absolute extent possible by State action rather than by the Federal Government.

COST OF CLEANING UP WATER

Mr. TALCOTT. When do you think you will have an idea of how contaminated our lakes and rivers and streams are and can give a reasonable estimate of the cost of cleaning them? You are taking these surveys now.

Sometime before you embark upon cleaning them all up, I think we ought to have a measure of how much it is going to cost. We ought to be able to tell people what the sacrifice is going to be. When can we expect this?

Mr. TRAIN. I do not think I can really answer that, Mr. Talcott. The problem is that we can identify a great many contaminants of one kind or another. Some of them may be perfectly benign. As our measuring and monitoring technology becomes more sophisticated, it is easier and easier to find these things. So we will locate more of them. Whether or not treatment should be provided to remove them depends on whether they are bad for us or not or whether the health cost can be measured in some way against the economic costs of cleanup.

Until we make these determinations as to the health significance of these various contaminants, it is very difficult to have any even ballpark guess as to what may or may not be needed by way of new treatment facilities or modification of existing facilities.

Mr. TALCOTT. This worries a number of us. The environmental impact is something we are getting very aware of but we do not have any appreciation of the economic impact that some of these things might have.

Putting it very simplistically, we may decide that cleaning up our waters by 95 percent would be a very good thing to do and it would cost so many billions but to clean them up by 97 percent might cause the magnitude of that cost to be increased four or five times. We might even want to draw the line and say no, we can accept a little bit.

Mr. TRAIN. Absolutely. That is why we need the kind of information we are trying to develop.

Mr. TALCOTT. Before we decide to get too involved in these programs and enact too many laws compelling you to do something, it seems to me we ought to have a better economic impact report. That is what we are waiting for from you people.

Mr. TRAIN. As we determine that a given contaminant in the water at the levels that are being found does represent a significant risk to health and as we then are able to determine what treatment process can be developed and installed for dealing with it, then we can give you a cost/benefit analysis, if you will.

It may well be the public judgment that the particular risk is there, but it is not sufficiently significant to justify the installation of maybe hundreds of millions of dollars of treatment facility by the local government. There is another way of getting at these problems which

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we will also be pursuing under the Safe Drinking Water Act. That is, as we determine that there is a contaminant in the water and we are able to trace it to its source, we can go to the source and have that discharge abated, controlled, or eliminated. Perhaps in many cases that can be done with minimal cost. It may be almost an accidental discharge, and nobody has thought about it. There are a great many alternatives which may not involve great public costs.

ADVISING THE PUBLIC OF HEALTH RISKS

Mr. TALCOTT. Some of the risks that you expose are so compelling, particularly to people on our side of the aisle, that we are willing to enact almost anything to protect against these hazards; sort of forgetting about the costs. I think we did this with hospitals. That is coming out now. We built so many hospital rooms that it is hurting the people who need hospital care because they have to pay an inordinate cost for empty rooms. I think we have to guard against this for the benefit of the taxpayer.

Mr. TRAIN. I think, as you may have noticed in reading the press reports of our drinking water sample, I endeavored to the very best of my ability to avoid giving the public any sense of panic or undue alarm about the problem, while at the same time responsibly telling the public that this is what we are finding; it is not something just to not worry about, it is a cause for concern and the responsible course of action is basically at this point to find out more about the problems.

I approached it from that standpoint. This is a very difficult line, obviously, to talk on issues of this sort because where there is a public health risk you do not want to be down-playing it. It has to be recognized and dealt with honestly because you owe that to the public. By the same token, where there are as many uncertainties, I think you have to frankly state those as well and not unduly alarm people.

I am hopeful that this is the result of the approach we have been taking.

Mr. BOLAND. I think you probably did. I think the first release, where you indicated that there were carcinogens in some water supplies, caused great concern. I noted that subsequent statements softened the impact, although your statement was perfectly fine on April 18 when you indicated what the contaminants were in the water supply systems that you surveyed. It is a difficult problem.

WATER SUPPLY DEMONSTRATION GRANTS

With respect to the demonstration and special study program, there was authorized in the Safe Drinking Water Act some $7.5 million for 1975 and the same authorization for 1976. You are not requesting any funds in this area; are you?

Mr. TRAIN. That is correct. We have not requested funds for the demonstration grant program authorized by the bill for 1976.

I think this simply represents our assessment of the most important priorities under the legislation, recognizing that there are fiscal constraints and budgetary constraints. We put our primary request for support in this program on the development of the regulations called for by the statute and on the research program needed to

further identify the significance of these problems as well as to support and provide a strong scientific base for our regulations and second, the $10 million which we included for the State grant program. These two struck us as the two most important priorities.

Mr. BOLAND. Did you ask OMB for any funding under section 1444?

Mr. TRAIN. I do not believe we did. No; we did not.

ASBESTOS FIBERS IN DRINKING WATER

Mr. BOLAND. Members of Congress and outside witnesses will be testifying next week.

Congressman Oberstar of Minnesota intends to testify in support of a demonstration project to show that a full sized filtration plant can remove asbestos fibers from the Duluth, Minn., tapwater. Will you favor funding this project if the money were placed in the budget?

Mr. TRAIN. Let me say this, Mr. Chairman: First, I am personally very familiar with the Duluth situation, obviously. I started working with the asbestos problem in Lake Superior when I was on the Council of Environmental Quality and I followed it through, really closely ever since.

Of course, EPA has been very closely associated with the problem and the litigation.

We have been providing all the technical assistance to the city of Duluth and other communities in the area that we can to assist them in dealing with drinking water problems, suggesting filtration and other technologies that could assist them with this. I would be very happy to take a close look at this particular problem. Whether or not we would be able to support a specific demonstration project here, I am just not able to say. I am interested in the problem and would take a good look at it.

Mr. BOLAND. Would that particular problem, the problem of asbestos fibers in drinking water, enjoy higher priority for funding as a demonstration grant than some other problem?

Mr. TRAIN. I think it would depend upon whether unproven, undemonstrated, and essentially new technology was involved here. My impression is that the technology that we are talking about for this particular case is and has been demonstrated. This is really a matter not so much of a demonstration project but simply the funding of a needed treatment work.

I may not be fully correct in that, but I would want to take a look at the problem. I'm just not that familiar with the particular technology being proposed.

Mr. BOLAND. And whether or not Duluth would be the proper place for a demonstration.

Mr. TRAIN. I do not know that there would be any better place, frankly. It is not the only one that has an asbestos problem in drinking water in the country. There are others with as high or higher levels.

Mr. TALCOTT. Where else?

Mr. TRAIN. Seattle and San Francisco, among others.

Mr. TALCOTT. I think we mine more asbestos in my district than any other place in the world and I never heard of it as being a major problem.

Mr. TALLEY. Asbestos is found in something like 70 percent of the continental United States. It is a natural mineral and we expect to find it almost everywhere.

Mr. TRAIN. But not necessarily in the high levels of the three I mentioned.

Mr. TALCOTT. Do you find it near the manufacturing plants?

Mr. TRAIN. I believe the two sources of asbestos in Seattle and San Francisco are natural sources.

Mr. AGEE. That is correct; yes.

INTERIM PRIMARY DRINKING WATER REGULATIONS

Mr. BOLAND. You have promulgated regulations under this program, interim regulations.

Mr. AGEE. That is correct, interim primary drinking water regulations.

Mr. BOLAND. You are asking us to appropriate $10 million under "Abatement and control" for grants to the States to implement these regulations. How do you know that the regulations you are implementing are the right ones?

Mr. TRAIN. At this point I would say—we can't; no.

Mr. BOLAND. The reason I asked that is that at this point we don't even know yet, do we, what levels of organic compounds are safe and what are not safe?

Mr. TRAIN. Yes; but these regulations, as I understand it, Jim, primarily do not deal with the organic chemical problem.

Mr. AGEE. That is correct.

First of all, we proposed them and finally promulgate them in June this year.

There is a second step. The final standards are to be done in about 2 years after they are studied by the National Academy of Sciences. These are interim standards that first of all we can go out and really use to get monitoring, require monitoring across the country to see what levels we had.

The second round of standards will only be after the National Academy of Science study.

Mr. BOLAND. I notice on pages WS-8 and WS-9 you have a long list of 1975 accomplishments. On pages WS-10 and 11 there is a list of things you plan to do in 1976.

When you have completed all the things you list for 1975 and 1976, I presume you will have a better idea of what the condition of our drinking water is today.

Mr. AGEE. Yes, sir.

WATER SUPPLY RESEARCH AND DEVELOPMENT

Mr. BOLAND. We will turn to page WS–15, "Research and development." You are requesting $12,364,200 for 1976, an increase of $7,602,000 above the 1975 level. This seems to be a place where the increase is justified. I think all of us recognize that it is important that we find out exactly what the problem is before we issue regulations to solve the problem.

Will $12 million in fiscal year 1976 answer some of the questions that are unanswered now about what level of organic compounds might be dangerous to human health?

Dr. TALLEY. We will begin to answer them but when you are dealing with questions of human health, those experiments generally take 2 to 5 years to produce an absolute determination—if we are able to get it.

One thing I might mention, since the subject came up earlier, one experiment not conducted by EPA is the National Institute of Environmental Health Sciences asbestos study to answer some of these questions.

VIRUS OCCURRENCES IN WATER SUPPLY SYSTEMS

Mr. BOLAND. On page WS–16, you indicated that you have completed a report on virus occurrences in 10 water supply systems. I gather there is some concern about the virus problem in drinking water, particularly in the area of water that has been recycled and in its long-term effects on sludge disposal. I think most of us have seen demonstrations of how waste water can be reused over and over again and it can be done so without any harmful effects. At least that is what is claimed. What about the virus problem? Is it a problem? What is your research telling you about viruses and drinking water?

Dr. TALLEY. What we are trying to find out is the scope of the problem and find methods for effective removal.

As you have mentioned, the main problem with the recycling of the water is to make certain one does not concentrate in each pass-through contaminants such as viruses or heavy metals.

SOLID WASTES

Mr. BOLAND. We will turn to solid waste and place pages SW–1 through SW–15 in the record.

[The pages follow:]

Solid Wastes

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$10,332,000	$11,622,700	+$1,290,700
Research and Development...	9,196,500	3,997,300	- 5,199,200
Total.....	19,528,500	15,620,000	- 3,908,500
End-of-Year Employment			
Abatement and Control.....	151	161	+10
Research and Development...	23	23	...
Total.....	174	184	+10

Overview and Strategy

Solid wastes management presents a spectrum of problems, from health and environmental hazards to waste management inefficiency, due to diversity in the nature of the waste' sources and composition. The basic problem, however, is improper wastes disposal which causes adverse environmental and economic consequences such as ground and surface water pollution, air pollution, aesthetic problems associated with uncontrolled dumping, decreased land values, and resource wastage.

Over four billion tons of waste are generated in the United States every year, of which over 10 million tons are hazardous--that is to say toxic, flammable, radioactive, explosive, or infectious. As these wastes represent a potential threat to human health and safety, they require special control through chemical transformation, detoxi-ification, recovery or, if such steps are impossible, by deposition on land.

Potential health and environmental effects vary

considerably for the remainder of the wastes such as sewage sludge, abandoned cars, municipal solid wastes, waste oil, rubber tires, wastes from confined animal feeding operations, and infectious hospital wastes. These effects depend upon the waste volume, composition, and concentration.

A principal problem from disposal sites is the generation of leachate--water that has soaked through and absorbed soluble or biological agents from the deposited waste. Where high rainfall and high water tables coexist (9,000-12,000 disposal sites are located in these areas), groundwater contamination may occur.

Resource conservation and recovery presents an alternative to disposal and can usually be achieved at a lower cost. The potential exists to recover, from mixed municipal waste, seven percent of the annual national iron consumption, eight percent of aluminum, five percent of copper, three percent of lead, 19 percent of tin, and 14 percent of paper. The tonnages these figures represent for aluminum and tin are greater than all domestic production of the raw materials.

The basic legislative authority for the solid wastes program is the Solid Waste Disposal Act, as amended. The program has two strategic goals: to achieve acceptable and safe waste management that will protect public health and welfare and the environment and to conserve resources. The basic tools the solid wastes program employs are (1) stimulation of regulatory action at the State and local level through the use of guidelines and recommended procedures; (2) research, development, and demonstrations aimed at greater understanding of the problems of solid waste disposal, development of improved disposal and recovery methods, and demonstrations of advanced technology; and (3) technical assistance to facilitate project development.

Summary of Increases and Decreases

1975 Solid Wastes Program.....	$19,528,500
Abatement and Control.....	+ 1,290,700
An increase to do material and source definitions, effects identification and technology assessment work necessary to develop Section 209 guidelines for the disposal, storage, treatment, and transport of hazardous and other wastes.	
Research and Development.....	- 5,199,200
A reduction resulting from $5.2 million added by the Congress in 1975 not being required in 1976.	
1976 Solid Wastes Program Request.....	15,620,000

Solid Wastes

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control			
Technical Assistance.....	$10,332.0	$11,622.7	+$1,290.7
Research and Development			
Processes and Effects....	351.9	352.0	+.1
Control Technology.....	8,844.6	3,645.3	-5,199.3
Subtotal.....	9,196.5	3,997.3	-5,199.2
Total.....	19,528.5	15,620.0	-3,908.5
End-of-Year Employment			
Abatement and Control			
Technical Assistance.....	151	161	+10
Research and Development			
Processes and Effects....	3	3	...
Control Technology.....	20	20	...
Subtotal.....	23	23	...
Total.....	174	184	+10

Solid Wastes

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Technical Assistance....	$10,332,000	$11,622,700	+$1,290,700
Total.....	10,332,000	11,622,700	+ 1,290,700
End-of-Year Employment			
Technical Assistance....	151	161	+10
Total.....	151	161	+10

Purpose

Under the solid wastes abatement and control program, EPA provides support to State and local governments through information dissemination, technical assistance, and guideline promulgation which draws upon past and current research, studies, and demonstrations. The program also performs a monitoring and compliance function for Federal facility activity. EPA considers the achievement of effective solid waste management to be a joint Federal, State and local effort with the EPA focusing on areas of waste management problems having a significant impact in terms of national implications (e.g., hazardous waste disposal, disposal of sludges resulting from air and water pollution control, demonstration of resource recovery technology) and State efforts directed towards the local management of municipal and other types of wastes.

The purpose of this program is to illustrate and encourage the use of the most advanced practices in solid waste management and technology. This is accomplished by stimulating at the State and local levels institutional changes which optimize disposal and resource conservation practices. In 1975-1976, program emphasis will be placed on development of State level programs for dealing with disposal of toxic and hazardous wastes.

Solid Wastes

Abatement and Control

Technical Assistance

	1975	1976	Change
Technical assistance.....	$10,332,000	$11,622,700	+$1,290,700

Technical assistance is provided to other Federal agenices, States, and localities with the objective of improving environmental performance while significantly lowering total solid wastes management costs. Technical assistance includes extensive efforts in working with cities to solve problems, providing technical information, and performing analyses to determine appropriate ways to resolve various solid wastes management problems. EPA issues solid wastes management guidelines (Section 209 of the Solid Waste Disposal Act) which Federal agencies will be required to meet and which will be recommended for public use.

The hazardous waste program activities in 1975-1976 focus on problem characterization which includes materials and source definitions, effects identification, and technology assessment. These actions will lead to guideline standards being promulgated in 1977 and 1978. Some effort will be directed toward working with States and providing emergency response-type technical assistance.

The 13 major industries which generate 75 percent of the total 10 million tons of hazardous wastes that are primarily sludges containing various metal, organics, and inorganics of toxic nature, are the focal point of program efforts. This effort includes comprehensive assessments of these industries which, upon completion, will present total waste profiles for the industries, identify the actual disposal methods now used, and provide a qualitative and economic assessment of those methods.

Technology assessment work is directed toward three major activity areas: incineration of organic hazardous wastes (with and without energy recovery); land disposal of hazardous wastes in highly controlled chemical waste landfills; and treatment of wastes (ion exchange, neutralization, chelation, etc.). As 60 percent of the hazardous wastes are

organic and can be burned, incineration has been selected as the first priority activity; second priority is placed on the remaining 40 percent of the wastes, which are inorganic, and must be either treated or placed on land. Each is a multi-year demonstration and assessment effort, both from a funding and performance standpoint. All of these activities will culminate in 1977-1978 and result in a revision of Section 209 guidelines which will include information on incineration, landfill, treatment, recycling, and tranport of hazardous wastes.

Section 209 of the Solid Waste Disposal Act requires that EPA publish in the Federal Register guidelines for solid waste recovery, collection, separation, and disposal (including private as well as public sector systems). To date EPA has published three guidelines: Land Disposal, Thermal Processing, and Disposal and Storage of Pesticides. Five guidelines will be promulgated in 1976; one in waste collection and four in resource recovery--separation, resource recovery facilities, procurement of recycled material, and beverage containers.

Work on other wastes will include an assessment of the effects and characteristics of leachate from disposal sites, assessment of sewage sludge disposal methods, and provision of limited technical assistance.

Investigatory work on describing the effects of leachate from disposal sites will be undertaken in 1975 and 1976. This work will include technology assessment and will result in revised Section 209 guidelines for land disposal, incorporating leachate groundwater protection procedures, in 1978. Control of leachate may be possible in two ways: through the use of the natural treatment characteristics of soils or through collection of leachate (e.g., by lining land disposal sites with natural or artifical membranes and by using drainage pipes) with subsequent treatment. Four methods for leachate treatment have been identified for assessment; two methods will be initiated in 1975 and two in 1976. Completion of these projects in 1978 will then be followed by preparation of a technical document on the basis of which guideline revisions will be made.

Sewage sludge is the chief residual of sewage treatment activities and currently occurs at the rate of about seven million tons dryweight yearly. Sludges are disposed of in a variety of ways--by incineration, land spreading, in sludge-only landfills, and in combination with municipal solid wastes

in sanitary landfills and dumps. The principal tasks leading to a sludge disposal guideline in 1977 are assessment of current practices, assessment of the heavy metals problem associated with sludges (which dictates the type of control on land or underground), and assessment of the adequacy of current methods of disposal.

Other areas of solid waste management now undergoing state-of-the-art studies include disposal or recovery of waste oil, tires, and other products that may be salvaged from mixed municipal solid waste. Once these studies are completed (late 1975) decisions will be made as to whether or not Section 209 guidelines will be prepared.

In resource recovery, technical assistance efforts are directed toward stimulation of energy recovery system implementation. Accelerating fuel costs have made energy recovery from waste a sound solid waste option. Implementation is impeded largely by institutional constraints (e.g., lack of knowledge, resistance to enter into long-term contracts) that can be solved by technical assistance. These efforts will result in community adoption of resource recovery systems in new areas.

1975 Program and Accomplishments

- Characterize hazardous waste amounts and sources for nine industries;

- Publish two documents emphasizing tranport mechanism and health effects of land disposal of wastes containing mercury and asbestos;

- Prepare an interim assessment indicating the adverse effects of leachate from landfill;

- Propose guidelines (Section 209) for collection, beverage containers, Federal procurement, source separation and separate collection, and recovery from mixed municipal wastes;

- Revise the Decision Makers Guide in solid wastes management to improve local decisions--incorporating additional chapters on balefields and landfill liners;

- Complete evaluation of the Franklin, Ohio, resource recovery technology demonstration;

- Evaluate sludge nutrients to determine their value as fertilizer;

- Assess the technology of methane gas recovery at landfills;

- Assess the impact of export controls on secondary materials recovery;

- Complete an environmental assessment comparing paper recovery for material value vs. paper recovery for fuel value;

- Complete a cost benefit assessment of separate collection; and

- Complete an annual report to Congress on resource conservation (Section 205).

1976 Plan

- Define hazardous wastes generated by four other industries;

- Assess damages and costs associated with the disposal of hazardous wastes;

- Complete an in-depth assessment of five land disposal sites to determine the characteristics of leachate, attenuation, and flow;

- Publish documents on the transport and health effects of wastes disposed of on land containing cadmium, chromium, lead, polychlorinated biphenyl, beryllium, selenium, and cyanides;

- Evaluate pollution from subsurface sludge disposal;

- Assess two technology options for treatment of leachate;

- Finalize Section 209 guidelines for collection and resource recovery;

- Complete evaluations of Baltimore, San Diego and Lowell resource recovery technology demonstrations; and

- Complete the annual report to Congress on resource conservation (Section 205).

Purpose of Increase

The increase for technical assistance will be directed toward the development of a hazardous and other wastes data base program which includes (1) an assessment of chemicals and waste streams as an evidentiary base for guidelines setting; (2) quantification of the waste disposal problem; (3) technology assessment, development, and demonstration; and (4) the necessary benefit/cost tradeoff analyses for guidelines setting justification.

Solid Waste

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and Effects..	$351,900	$352,000	+$100
Control Technology.....	8,844,600	3,645,300	-5,199,300
Total.....	9,196,500	3,997,300	-5,199,200
End-of-Year Employment			
Processes and Effects..	3	3	...
Control Technology.....	20	20	...
Total.....	23	23	...

Purpose

EPA's research and development efforts in the solid waste program are directed toward the development of improved solid waste management, disposal technology, and resource recovery technology. These technological advances will enable local agencies to handle their solid waste problems in an effective and economical manner. In addition, the program is expanding efforts to develop the scientific base for the establishment of standards for hazardous wastes disposal. In particular, information on the fate and processes of such materials in groundwater systems is being developed and formulated into criteria documents.

Solid Waste

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects.....	$351,900	$352,000	+$100

This program encompasses identification and evaluation of potentially toxic and pathogenic products of solid wastes incineration, landfilling and recycling operations, and the assessment of their public health impact. Investigation of the pathogenic contamination of solid waste incineration and the movement of viruses and pathogens from disposal sites will lay the scientific foundation for the development of standards to protect the public health.

The program also involves the evaluation of deep well disposal of toxic materials, the study of groundwater contamination from sanitary landfill operations, and the study of the fate, in soils and groundwaters, of heavy metals and other hazardous materials from sludge and industrial waste by-products.

1975 Program

- The 1975 objectives of this program include: A study on the migration of hazardous materials from land disposal sites; determination of quality and quantity of leachate and gas from sanitary landfills; publication of health effects data on specific hazardous materials (i.e., metals); and an analysis of ecological effects of sanitary landfills.

1975 Accomplishments

- Provided assessments and interpretations of effects data and initiated effects research on an expanded list of substances including arsenic, asbestos, beryllium, cadmium, chromium, copper, cyanides, lead, mercury, selenium, zinc, aldrin/dieldrin, benzidine, DDD/DDE/DDT, endrin, polychlorinated biphenyls, and toxaphene. These assessments provide the basis for scientific criteria documents for Office of Solid Waste regulatory decision making;

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- Conducted transport process investigations on the migration of hazardous materials through soils. A research seminar at Rutgers University this fiscal year will disseminate results;

- Completed a major portion of the research on the environmental effects of sanitary landfill effluents;

- Investigated the movement and retention, transformation, and volatilization of pesticides, polychlorinated biphyenyls and hexachlorabenzene in soils. Criteria for safe disposal by thermal destruction have been developed for some pesticides;

- Investigated the retention of hazardous substances by soils from electroplating, chlorine production, nickel-cadmium battery production, inorganic pigment manufacturing, and water-based paint production in industrial waste streams; and

- Assessed environmental effects of current disposal practices for polyvinyl chlorides.

1976 Plan

- The 1976 plan provides for continued assessment and interpretations of effects data to support disposal standards setting by responsible State and local authorities. There will be continuing investigation of the environmental protection afforded by landfill liners, encapsulation, chemical fixation of hazardous wastes, and other control techniques. Also, a continuation will be made of investigations on effects of disposal of infectious and health care facility wastes. Finally, a continuing investigation will be conducted on transport mechanisms of hazardous waste disposal. Plans also include studies of soil retention of hazardous waste substances for up to 28 additional waste streams.

Solid Waste

Research and Development

Control Technology

	1975	1976	Change
Control technology....	$8,844,600	$3,645,300	-$5,199,300

This program involves the development of control techniques and technology for the safe disposal of toxic and hazardous solid wastes. The effort supports the setting of meaningful and comprehensive standards and regulations by the authorities responsible, and will provide the means for evaluating and fostering improvement of disposal practices for toxic and hazardous solid wastes. Initial emphasis will center on disposal techniques for materials exhibiting known hazardous effects. To a lesser extent, resource recovery and municipal solid waste disposal technologies, including studies of the combustion of solid waste to produce energy, will be developed and evaluated.

1975 Program

- The objectives of the 1975 program include the generation of a cost analysis of disposal methods of selected hazardous materials and development of a report on the economic analysis of solid and hazardous waste handling. Also included in the program is an update of new acceptable techniques for recovery/disposal of hazardous wastes. Technical assistance is being provided for improvement of existing methods for disposal of municipal refuse and hazardous wastes. Finally, a determination is being made of the feasibility of conversion of solid waste into energy and reuseable products.

1975 Accomplishments

- Conducted experimental incineration studies to establish time-temperature relationships for acceptable decomposition of various pesticides;

- Conducted investigations of chemical treatment and degradation methods for pesticides, including the establishment of safe procedures for using caustic soda, hypochlorite, peroxides, and acids;

- Investigated new hazardous waste treatment technologies including chlorinolysis, wet air oxidation, decomposition by acids and bases, chemical oxidation, biological degradation, ion exchange, photochemical, low temperature microwave discharge, osmosis/ultrafiltration, and activated carbon absorption;

- Initiated an evaluation of unit processes for resource recovery. Results may be used by municipalities contemplating the use of resource recovery technology;

- Conduct a test program to evaluate promising organic and inorganic processes for fixing and coating pesticides, soluble organics, and heavy oil residues. Samples of various toxic wastes fixed by various techniques will undergo long-term field and laboratory testing;

- Conducted a test program to evaluate landfill liners of clay, cement, asphalt, and plastic membranes to test resistance to acids, bases, solvents and physical impact. Results will provide criteria for safe disposal of various classes of wastes, both hazardous and non-hazardous; and

- Completed test of CPU-400 energy recovery system, using "dry scrubber" filter system to attempt to solve problems of alumina deposition on turbine wheel.

1976 Plan

- Objectives for 1976 include preparation of a field manual for use by farmers and home owners on safe disposal of pesticides, and evaluations of several commercial chemical fixation processes and several processes developed by the Corps of Engineers.

- Efforts will continue to develop and evaluate new technologies for safer disposal of hazardous wastes.

- A primary objective in the field of energy conservation will be to investigate energy and fuel recovery processes to obtain valuable methane, alcohol, and other materials from waste products.

Purpose of Decrease

The decrease of $5.2 million reflects the impact of the one-time FY 1975 Congressional increase for research on energy recovery through combustion of solid wastes.

SOLID WASTE LEGISLATION

Mr. BOLAND. In this area you are requesting $15,620,000 for 1976. That is a reduction of about $4 million from the 1975 level.

How old is the Solid Waste Disposal Act? When was that passed?

Mr. STRELOW. The original Solid Waste Disposal Act was passed in 1965. However, there may have been some predecessor legislation in the Public Health Service.

Mr. BOLAND. So we have been administering that act for the past 10 years.

Mr. STRELOW. Yes, sir.

Mr. BOLAND. What about the Resource Recovery Act, that is about 5 years old, is it not?

Mr. STRELOW. Yes, it is.

Mr. BOLAND. That is a pretty good span, 10 years for the Solid Waste Disposal Act and 5 for the Resource Recovery Act. It would seem that we ought to have some positive ideas developed on how to meet the garbage crisis facing our cities. Yet earlier this month, on April 17, only a simple extension of the law was requested. What is the magnitude of the problem facing the Nation in solid waste management?

The legend on page SW–1 says, "Over 4 billion tons of waste are generated in the United States every year, of which over 10 million tons are hazardous—that is to say toxic, flammable, radioactive, explosive or infectious." I guess that is the magnitude of the problem, is it not?

Mr. STRELOW. Yes, sir. I think in the magnitude of the problem. In the past 5 years there has been a tremendous shift in the focus of the program.

Initially, the focus was on municipal garbage, conventional domestic garbage.

In the recent years we have been concerned about resource conservation and resource recovery. Also this budget proposal reflects a strong concern about hazardous materials disposal.

Mr. Train mentioned the other day our concern about disposal of chemicals in the environment. Our concern on hazardous wastes, most of which are industrial, is their land disposal. This program also has moved toward dealing with the sludge residues from the increasing air and water pollution controls, and is concerned with toxic materials getting into the water supply.

OMB REQUEST

Mr. BOLAND. The problem is a serious one. It is a very difficult one. Why is EPA requesting only minimal funding for this program? You have a reduction of $4 million for 1976. What did you request of OMB for this program.

Mr. STRELOW. Our request to OMB for the abatement and control, our request was $13,975,400. The President's budget is $11,622,700. So there is roughly a $2.3 million difference.

Dr. TALLEY. In research and development, we requested level funding.

Mr. TRAIN. We requested $19 million total.

Mr. STRELOW. I believe the $5.2 million decrease in the research and development area reflects the congressional add-on.

Dr. TALLEY. Yes, it was Congress' initiative of $5.2 million.

Mr. BOLAND. How much did you ask OMB for under Water Quality for Sludge treatment? Was there any specific request to the OMB?

Mr. AGEE. No, sir.

Dr. TALLEY. I believe we requested $6 million for R. & D. for sludge treatment in water.

SOLID WASTE TECHNICAL ASSISTANCE

Mr. BOLAND. The GAO stated in a recent report to Congress that an increased capability to provide technical assistance to States and local communities was required in EPA's Office of Solid Waste Management. The report indicated that there is only sufficient manpower to assist one locality at a time. Yet, the budget justification indicates only 161 positions are requested for this program, an increase of 10 over last year; is that correct?

Mr. STRELOW. Yes.

Mr. BOLAND. Why aren't you developing your assistance plans to meet the demonstrated needs, particularly at a time when more communities are looking into the advanced resource recovery facilities which require the assistance and guidance of EPA? You know, this is an area where EPA can be terribly useful to local communities. You could inform them of the particular resource recovery facilities that might be available, that are available now, and indicate whether or not they are really useful, whether or not cities ought to get into the matter, and whether or not they ought to contract with the private organizations that are developing resources recovery systems. I would think that the assistance and guidance of EPA would be most important to the communities.

What about your assistance program to the local communities? What are you doing with reference to resource recovery?

Mr. STRELOW. I believe our feeling is that some additional manpower could be more effectively used. However, given the overall constraints on personnel within the agency, we have attempted to compensate somewhat for the shortfall in personnel providing limited financial assistance, front end planning assistance to selected communities that are seriously interested in resource recovery systems. Even though we may not be able to devote as much of our own manpower as we might like, at least we can give them some financial assistance.

Mr. BOLAND. The increase is only 10 positions over last year, correct?

Mr. REDENIUS. Yes, sir. There is an increase of 10 positions and $1,290,700.

SOLID WASTE RESEARCH

Mr. BOLAND. Do you think EPA ought to be asserting itself in a more constructive direction? What is EPA doing? Are you doing anything in this area at all?

Dr. TALLEY. In the solid waste R. & D. area, we are examining not only the waste material, but the Btu content of using solid wastes as a supplemental fuel and the like.

Mr. TRAIN. We also have a program which is exploring alternative ways for using sludge on the land. We are working with the Department of Agriculture in joint projects at Beltsville, Md., we have heavy metals research to identify that aspect of the sludge use problem as heavy metals in sludge put on land tend to get picked up by the crops grown and passed on to the food chain.

SOLID WASTE MANAGEMENT PRIORITY

I would just like to add a few words about the overall solid waste problem to those which you expresed, Mr. Chairman.

I would say that in talking with mayors and other city officials all over the country, and I have met with a lot of them, the problem of solid waste management at the municipal level is looming as one of the very highest priority problems. Some officials will tell you it is their No. 1 concern. I remember when the Conference of Mayors was here last year they took a poll of the mayors and this was either as the first, second, or third highest priority of municipal concern. Of course to many of them it achieves its priorities because of rising costs, it is a great budget problem for them.

I do not believe it is appropriate for the Federal Government to solve that aspect of the problem by direct categorical grants for solid waste management, but I do think that there is a very fruitful field for assisting municipalities to deal with these problems through technical assistance. I think this has been demonstrated to be an effective approach. We have done a great deal in terms of the demonstration of technology in this area. There is a great deal of technology that is available. I do not think we feel that the needs at this time are so much in the development of new technology as to get things off the shelf and into use. The problems tend to be institutional and economic in terms of resource recovery and recycling.

These are areas where our technical expertise can be exceedingly helpful. Now you would ask, "Why don't you ask more for funds and personnel for this area?" I think basically it comes down to the problem of living within an overall budgetary and fiscal constraints. We just simply cannot go for an optimum budget in all areas. That is the problem here as it is in other areas. We think these resources give us some additional capability which we will be able to use with great effectiveness.

MANAGEMENT AND CONTROL OF SOLID WASTES

Mr. TALCOTT. I know we are operating under limited time restraints this morning and I don't intend to take much time.

The chairman brought up a problem which I think is very important. I think he ought to go one step further. Something is coming out loud and clear to me with your talk about control of the water pollution and waste, solid waste disposal, that waste is one of our most critical problems in our country. We have talked about waste of oil and energy as being a critical problem, that we are not really measuring up to this for one reason or another.

It seems to me we waste more solids, we waste water and we waste food like no other nation in the world.

Waste management is the second step. If we could just reduce waste, and you people are seeing this quicker than anybody, it seems to me, that we ought to have a waste reduction program prior to a waste management program. You people are in a position to be able to articulate that. I do not know of any committee of the Congress that talks about waste and that is our major problem, it seems to me. You people are in the cutting edge of it. You could develop some constructive programs which would be beneficial to the taxpayer, beneficial to you.

We could save half of your budget in waste management if we wasted less.

Mr. TRAIN. You would save a lot more than that.

Mr. TALCOTT. That is right. I think what the chairman is trying to suggest here is that we should not be just disposing of our waste, but managing it better, recycling, reusing, and reclaiming. I am saying we ought to go back even further than that and have some positive constructive programs about how to avoid waste of water, waste of food, and waste of solids in the first place.

I think we are decades behind the curve on this.

Mr. TRAIN. I couldn't agree more with what you have to say on this, Mr. Talcott. We certainly agree that the reduction of waste at the source, rather than trying to deal with it as a disposal problem or even as a management problem is very much needed right across our society.

Energy is probably the crying example at this time. The greatest thing we can do to improve our energy supply or the availability of energy is to conserve energy.

Mr. TALCOTT. If I knew your research and development was going to be for this, I would vote for four or five times as much, but I don't think any of our research and development is headed in this direction.

Mr. TRAIN. Recycling, for example, is a way of cutting down on waste at the source. Materials get reused, put back into the manufacturing process rather than entering the waste stream.

Mr. TALCOTT. Reusing is better than recycling. If you recycle bottles and break them up and make new glass, that is an expensive, energy-using, solid material wasting procedure. If we could use the bottle over again, that is a great reduction in many things.

Mr. TRAIN. We have testified in Congress on the throwaway container issue which you know is very controversial. We have supported the idea of increasingly moving away in a phase-out manner, from throwaway containers to returnables.

Mr. TALCOTT. I did not want to rub a new sore or anything of this sort, but I wanted to suggest that the chairman had a good idea here and I would like to see it taken further.

WASTE REDUCTION PROGRAM

Mr. QUARLES. I would like to add one word here to emphasize that the waste reduction program is a very important concern of our Office of Solid Waste. We held a conference here in Washington about a month ago, expressly on this subject. We have conducted a great many studies focusing on waste, that waste could be saved or avoided by

industries or others. Our principal emphasis has been on trying to spread the word and work for voluntary cooperation by industry, citizens groups, and others in this field.

It is very definitely a point of emphasis in our program.

Mr. TRAIN. You also referred to water, the conservation of water. As you look at our effluent guidelines, they move in the direction of getting away from the once-through use of water, and toward the direction of closed cycle systems so that the water remains in the system and is reused.

I think that in the industrial area this is going to have a tremendous impact over a period of time, of course in reducing industrial demands for water and improving the conservation of water across the country.

We certainly have been addressing the issue as best we can with—although we don't have direct responsibility here—in terms of more fuel-efficient automobiles to reduce the use of gasoline.

This is again a form of the avoidance of waste. Our fuel economy information on automobiles which we publish and distribute, I think, is the best seller at the Government Printing Office. Hundreds of thousands of these pamphlets are being requested regularly. It is a matter of tremendous interest across the country. People are very interested in this. I think that our fuel economy testing program and publicity that we have given to the economy provides choices for the consumer, without making really direct suggestions, has been influential in moving the American market toward more fuel-efficient automobiles with enormous potential savings to our society. In a great many interrelated ways we are addressing these kinds of problems as best we can.

COSTS OF TECHNICAL ASSISTANCE

Mr. BOLAND. On page SW–6, will you break down your base figure of $11,672,700 as to what is included in your efforts for technical assistance relating to abatement and control of solid waste? What dollars do you assign for the specific efforts that you talk about on pages SW–6 and 7; will you break that down?

You can do it for the record.

[The information follows:]

SOLID WASTE ABATEMENT & CONTROL

Summary of Resources by Program Area
(dollars in thousands)

Program Area/sub-area	FY 75 Pos.	FY 75 Amount	FY 76 Pos.	FY 76 Amount	FY 76-75 Change Pos.	FY 76-75 Change Amount
I. Hazardous Wastes	31	2,565	41	3,867	+10	+1,302
A. Problem Characterization	14	1,940	24	3,242	+10	+1,302
B. Guidelines, Standards	7	175	7	175	--	---
C. Implementation	10	450	10	450	--	---
II. Other Wastes	25	1,125	25	1,081	--	-44
A. Problem Characterization	12	500	12	756	--	+256
B. Guidelines, Standards	5	125	5	125	--	---
C. Implementation	8	500	8	200	--	-300
III. Resource Conservation	31	2,800	31	2,800	--	---
A. Energy and Materials Recovery	17	2,205	17	2,205	--	---
B. Paper and Special Wastes, Subtotal	8	295	8	295	--	---
C. Source Reduction and Policy Analysis	6	300	6	300	--	---
IV. Program Management & Support	22	1,060	22	1,060	--	---
A. Technical Information	13	780	13	780	--	---
B. Program Management	9	280	9	280	--	---
V. State Assistance	42	2,782	42	2,815	--	+33
A. Regional Offices	42	982	42	1,015	--	+33
B. State Support Grants	--	1,800	--	1,800	--	---
TOTAL	151	10,332	161	11,623	+10	+1,291

FRANKLIN, OHIO, DEMONSTRATION

Mr. BOLAND. On page SW–8, what is the cost of the Franklin, Ohio, demonstration, and what does it hope to achieve?

Mr. STRELOW. The total cost of that demonstration is $3.2 million, of which the Federal share is $1.9 million. The project is to be finished early in the 1976 calendar year.

The principal purpose in this area has been to demonstrate materials recovery as opposed to energy recovery from the solid waste stream to separate out various reuseable fractions of glass, metals, and so on.

Mr. BOLAND. At what stage is it now, in operation?

Mr. STRELOW. Yes; it is in operation now. Our evaluation of the demonstration will be completed early in 1976.

Mr. TRAIN. But it is already the model for systems that are being developed at their own expense by other municipalities around the country, full-scale commercially operating ones.

Hempstead, Long Island, has a $40 million plant based upon the Franklin demonstration.

SOLID WASTE DEMONSTRATIONS

Mr. BOLAND. On page SW–7, the last paragraph on the page, you say that sewage sludge occurs at the rate of about 7 million tons dry weight annually and is disposed of by incineration, land spreading, sludge landfills, and in combination with municipal solid wastes in sanitary landfills. It seems that none of these indicate any constructive use of this as a resource.

What has happened to the efforts to use it as a commercial fertilizer, such as milorganite from the Milwaukee plant?

Mr. AGEE. The Milwaukee plant is still producing milorganite.

Mr. BOLAND. What is milorganite?

Mr. AGEE. Dried sludge that has been treated and digested in a digestor. It is free of contamination; nitrogen and phosphorus are added. It is used as a soil toner and fertilizer.

SLUDGE DISPOSAL

Mr. STRELOW. Some of the EPA demonstrations utilize sewage sludge in the process; for example, the Delaware project is a combination of using the garbage and sewage sludge. One of the interesting features of the system is that it can be channeled, depending on market conditions and demand, to either using the sludge in the combustion process for energy recovery, or it can be channeled into composting.

Mr. TRAIN. One of the main constraints, to utilizing sludge, really, has been economic. It has been cheaper for the farmer to buy a chemical fertilizer high in nitrogen or phosphorus or whatever is required, than it is to utilize the sludge.

The market system simply has acted against the effective use of sludge so far. This is beginning to change somewhat because, as you know, the prices of fertilizers have been skyrocketing. However, I

suspect that there are going to be market constraints on the effective use for agricultural purposes of these sludges for some time.

Mr. AGEE. Mr. Chairman, there certainly are ideas to use municipal sludges. Industrial sludges is quite a different problem and some municipal sludges, too. We have to overcome one area and that is the health effects of using sludges that contain toxic materials, particularly heavy metals.

Our research has not sufficiently addressed the questions like what happened to cadmium if you put it on croplands and the uptake that you find in the food. That is a matter Dr. Talley and his people are looking at.

Certainly there is great opportunity for cities where they do not have any significant industrial components to use their sludges as a soil nutrient. However, until we can satisfactorily address the heavy metals and other toxicity problems associated with industrial sludges, it is very difficult for us to recommend their application to food crops.

INCREASE FOR SOLID WASTE PROGRAM

Mr. BOLAND. On page SW-10, you talk about the purpose of the increase. Can you be a bit more specific in describing the current efforts and needs for more funds for each of these purposes?

Mr. STRELOW. Yes, Mr. Chairman. The real focus of the increase requested in technical assistance is in the hazardous waste area. What we are attempting to do is to prepare States for what hopefully will be an expanded role in regulating hazardous waste generation and disposal. Also, perhaps in anticipation of an ultimately stronger Federal regulatory role, we are assessing the kinds of hazardous wastes that are in fact being generated by different industries, to get a better fix on which wastes are coming from which industries in which quantities.

We are intending to examine intensively specific alternatives for hazardous waste disposal. I think 60 percent of what we classify as highly hazardous are organics which can be incinerated; therefore, we are examining various incinerators' effectiveness in destroying these wastes.

We are also looking at different kinds of chemical treatment which would detoxify and neutralize these wastes. We are trying to build the data base in this area much along the lines that you were discussing in the drinking water program. Getting all the facts that will be needed for States and ourselves to deal more effectively with these wastes in the future.

ENERGY RESOURCE RECOVERY

Mr. BOLAND. In the third paragraph on page SW-8, you state, "In resource recovery, technical assistance efforts are directed toward stimulation of energy recovery system implementation."

What is your request for technical assistance here? How much of the technical assistance are you directing in this area of energy recovery?

Mr. STRELOW. I believe it is $600,000.

Mr. BOLAND. How are proposals in this area made—the proposals for technical assistance in this kind of operation?

Mr. STRELOW. Many of these requests come to us unsolicited; that is, communities that are very much aware of the resource recovery potential simply come to us often through our regional offices. Also, where we are aware of the potential, for example, in the New York City area, I think we have felt for a long time that there was tremendous potential here for the St. Louis type project, burning garbage in coal-fired powerplants. We may suggest that the city consider resource recovery as an option for dealing with its solid waste management problems. We have done some spade work there that is now beginning to pay off.

Mr. BOLAND. The city officials and utilities have expressed an interest. The National Science Foundation in one of its activities, the RANN program, is also involved in this very activity. How do you interface with NSF in this area?

Dr. TALLEY. The RANN program is aimed more at the very advanced scientific technology such as pyrolysis and the like. It leads EPA's own research development program by several years and does not get involved in providing the type of on-hand assistance that the Office of Solid Waste Management Programs provides.

Mr. BOLAND. I thought they got involved.

Mr. STRELOW. No; they do not.

SOLID WASTE RESEARCH AND DEVELOPMENT

Mr. BOLAND. In processes and effects for 1976 you estimate three people and the cost is $352,000. Why should the efforts of three people in processes and effects cost $352,000? What does this cover?

Dr. TALLEY. That would be the development of criteria documents through contracts and grants. I think I should mention that over the years in the R. & D. program with the addition of new responsibilities and new funds, and as Mr. Quarles pointed out yesterday, no new people, we have been forced to shift from what was an in-house program to one relying mostly on contracts and grants.

Mr. BOLAND. You have 20 people in control technology in 1975.

How are you using the $5.2 million congressional increase for combustion of solid waste?

Dr. TALLEY. $1 million is going to finish the CPU–400 program.

Mr. BOLAND. What is that?

Dr. TALLEY. That was a process that began in 1969 to 1970. I believe a total of $8 million has been spent on it so far. The idea was that solid waste would be consumed in a fluidized bed reactor. The hot exhaust gases would then flow through a high temperature turbine and generate electricity. The solid waste used for electricity could possibly generate about 10 percent of the electricity needs of a community.

Unfortunately, we know we can combust the material efficiently, with no air pollution problems but managing to separate the little pieces of aluminum from municipal solid waste has so far defeated us. When the vaporized aluminum reaches the turbine blades, it quickly ruins them and you have to shut down the system and replace them.

Mr. BOLAND. How many people were involved?

Dr. TALLEY. One on site from EPA and the rest is completely contract operation.

Mr. BOLAND. When will it be completed?

Dr. TALLEY. It should be completed this year. It will either work or it won't work.

Mr. BOLAND. Why do you still need 20 people in control technology in 1976 when the funds you are requesting are being considerably reduced? You are cutting it by $5 million.

Dr. TALLEY. Yes; but we are maintaining a program of $3,500,000. One of the things that has happened over the last year is that the energy dollars which nearly doubled our budget came with no increase in positions for fiscal year 1975. We are reprograming within the agency to make official the shifting of personnel that we have had to shift in order to cover those funds.

OMB REQUEST

Mr. BOLAND. How much did you request of OMB for solid waste R. & D.?

Dr. TALLEY. Solid waste R. & D. was level funding and level positions and that is what we were given.

Mr. BOLAND. Mr. Baucus.

SOLID WASTE MANAGEMENT GUIDELINES

Mr. BAUCUS. Is there a program in EPA for issuing guidelines for other Federal agencies to encourage these programs?

Mr. TRAIN. Yes; there is. We are required to develop and issue guidelines on solid waste recovery, collection, separation, and disposal practices.

Roger, could you address that?

Mr. STRELOW. Yes, sir. Section 209 of the act requires that the Agency issue guidelines for various aspects of solid waste management which are mandatory for Federal agencies and nonmandatory for everyone else. They are also intended to stimulate local action.

Mr. BAUCUS. It goes to other agencies?

Mr. STRELOW. No; the act provides that those guidelines are nonmandatory outside of the Federal establishment. They are mandatory with respect to Federal agencies.

We have issued guidelines for landfill and incineration of solid wastes. We will very shortly be issuing guidelines on resources recovery systems and on collection as well on returnable bottles and procurement of products containing recycled materials.

With respect to the procurement guidelines, I might add that we have had an opinion from our General Counsel which indicates that procurement is not within the scope of mandatory guidelines for the Federal agencies. As we have a good deal of information on the subject, we will publish them in the form of guidelines, but they will not be mandatory for Federal agencies.

Mr. BAUCUS. Are there any guidelines under the Resource Recovery Act of 1970?

Mr. STRELOW. That is the authority I have been referring to.

Mr. BAUCUS. Has there been any litigation brought by environmental groups?

Mr. STRELOW. Yes; as a matter of fact there has. Some time ago there was a contention by NRDC, that the Agency was not proceeding as rapidly as they would have liked in issuing these guidelines.

We frankly had channeled our priorities to some extent in other directions. However, we have worked out agreements with the court and with the petitioners to a schedule and the things we are doing are pursuant to that schedule.

Mr. BAUCUS. That is now resolved to your satisfaction?

Mr. TRAIN. The litigation I gather is resolved.

We have not solved all the problems of the guidelines as yet.

Mr. BAUCUS. Is it a problem of staffing?

Mr. STRELOW. Yes; it really was basically a problem of staffing.

We simply had devoted our staff resources in other areas.

Mr. BAUCUS. Thank you very much.

PESTICIDES

Mr. BOLAND. We will turn to pesticides and place in the record pages P–1 through P–22.

[The pages follows:]

Pesticides

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$19,521,900	$29,552,100	+$10,030,200
Enforcement.....	3,408,500	3,582,900	+174,400
Research and Development....	11,193,000	11,197,900	+4,900
Total.....	34,123,400	44,332,900	+10,209,500
End-of-Year Employment			
Abatement and Control.....	671	671	...
Enforcement.....	153	153	...
Research and Development....	148	148	...
Total.....	972	972	...

Overview and Strategy

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), amended in 1972, gives the Environmental Protection Agency broad new responsibilities and authorities to protect man and his environment from the adverse effects of chemical pesticides. It places many new responsibilities on States and calls for extensive cooperative efforts not previously required. The new Act continues EPA's responsibilities under the 1947 FIFRA and adds new areas of control of the routes by which almost all pesticides reach the environment. The full implementation of the Act by October 1976 dictates four major approaches over the next two years.

1. EPA must reregister and classify over 30,000 interstate and 15,000 intrastate previously registered products for "general" or "restricted" use. This calls for action based on assessment of the unreasonable adverse effects of pesticides including the costs and benefits of their uses.

2. EPA now has the authority to insure control of local health and environmental problems arising from misuse of

pesticides. This will be accomplished by requiring that applicators of potentially hazardous pesticides be properly certified; by improved labeling and packaging; by imposing regulatory restrictions as needed; by applicator training and public education; and by timely enforcement.

3. EPA will undertake a comprehensive hazard evaluation system to better understand the nature and extent of adverse effects of pesticides on man and the environment.

4. EPA is conducting near-term research studies in ecological and human health effects for hazard evaluation and in the development of alternative pest control techniques.

While these four major approaches are being implemented, EPA will develop a long-term strategy for the period commencing in 1977. This strategy design will be based on the experience gained in administering pesticide supply and use control programs, in improving evaluation of pesticide hazards, and from new knowledge gained from research and special scientific studies.

About one billion pounds of pesticide active ingredients are used each year in the United States, over 50 percent by the agricultural sector and 30 percent by industrial and institutional users. It is important, therefore, that any action regulating pesticide use be based on careful assessment of its effects on the activities in the sector of use.

Because of the acknowledged benefits from pesticides, they have now become increasingly important to agricultural production, to public health and sanitation and to protection of capital investments and natural resources, as well as to the improvement of human well-being. There are, however, adverse pesticide impacts. Impacts on human beings are the most important and include large numbers of non-fatal poisonings, a significant portion of which require hospitalization. (For the most part the principal causes of these poisonings are poor application techniques, lack of protective clothing, faulty equipment, and failure to read, understand, or heed label instructions.) Environmental impacts are not easy to assess due to the complexity of pesticide movements in an ecosystem, but improper use or disposal of pesticides often results in wildlife or domestic animal poisonings.

Immediate operational objectives and tactics are based on four specific strategic approaches:

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1. Supply control, to keep highly hazardous chemicals off the market through the registration process and through labeling, classification, and other regulatory restrictions.

2. Use control to restrict the use of pesticides classified for "restricted use" to certified applicators; to improve label directions for safe use; to educate the consuming public in proper use of pesticides; and to take civil or criminal enforcement measures when necessary.

3. Hazard evaluation, to conduct human effect monitoring, ambient residue monitoring, and accident surveillance which serve to alert EPA and provide supporting data for administrative actions to remove from the market registered products whose use causes unreasonable adverse effects.

4. Research and special studies, to develop data and analytical techniques, to discover unknown hazards of pesticides, and to gain knowledge on the behavior of pesticides and their effects on human health and ecosystems.

Summary of Increases and Decreases

1975 Pesticides Program.....	$34,123,400
Abatement and Control.....	+10,030,200
The increase will support: reregistration and classification of an estimated 22,000 interstate and intrastate products and to meet the effective date (October 1976) of the FIFRA; development of cooperative programs with States for implementation of applicator certification and training programs; $1.8 million to provide grant and contract support for State development and implementation of applicator certification and $7.2 million to provide grant and contract support to States including cooperative state extension services for the implementation of applicator training programs.	
Enforcement.....	+174,400
The increase will support the full year costs of the October 1974 pay raise.	
Research and Development.....	+4,900
This increase is required for a minor adjustment in personnel compensation and benefits.	
1976 Pesticides Program Request.....	44,332,900

Pesticides

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control			
Registrations and Tolerances.	$7,654.2	$8,114.2	+$460.0
Monitoring.....	4,543.2	4,564.5	+21.3
Technical Assistance.....	7,324.5	16,873.4	+9,548.9
Subtotal.....	19,521.9	29,552.1	+10,030.2
Enforcement			
Pesticides Enforcement.....	3,408.5	3,582.9	+174.4
Research and Development			
Processes and Effects.....	11,193.0	11,197.9	+4.9
Total.....	34,123.4	44,332.9	+10,209.5
End-of-Year Employment			
Abatement and Control			
Registrations and Tolerances.	407	407	...
Monitoring.....	80	80	...
Technical Assistance.....	184	184	...
Subtotal.....	671	671	...
Enforcement			
Pesticides Enforcement.....	153	153	...
Research and Development			
Processes and Effects.....	148	148	...
Total.....	972	972	...

NOTE: Registrations and tolerances manpower includes 51 positions formerly carried against the Revolving Fund for tolerance petitions. Labor costs for processing fee bearing tolerance petitions will continue to be charged against Revolving Fund receipts.

Pesticides

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Registration and Tolerances.....	$7,654,200	$8,114,200	+$460,000
Monitoring.....	4,543,200	4,564,500	+21,300
Technical Assistance.....	7,324,500	16,873,400	+9,548,900
Total.....	19,521,900	29,552,100	+10,030,200
End-of-Year Employment			
Registration and Tolerances.....	407	407	...
Monitoring.....	80	80	...
Technical Assistance.....	184	184	...
Total.....	671	671	...

Purpose

EPA's pesticide abatement and control program plays a major role in the pursuit of the Agency's total pesticide control strategy. Registration and tolerance activities support the supply control strategy by requiring all pesticide products to be registered. Review of registration applications and their supporting data allows EPA to keep unsafe or ineffective products off the market. The registration review process gets in-depth scientific and socio-economic information from special studies of suspect chemicals and of substitue chemicals, each area of review being found increasingly essential to sound administrative decisions. When it is necessary to protect health or the environment, registration may be cancelled or suspended, or under the authorities of the new Act, products may be registered for "restricted use". These activities also support the use control strategy by establishing residue tolerances for pesticides applied to feed or food crops, by specifying proper labeling and safety precautions, and by requiring "restricted use" products to be applied only by properly

trained and certified applicators. Research and policy studies are pursued to improve laboratory methodology and guide policy direction. Monitoring activities support the hazard evaluation strategy by gathering data on the health effects of long-term pesticide exposure and the distribution of pesticide residues in the environment and by the analysis of marketed pesticide products. Data gathered by these efforts support improvement of registration standards.

Technical assistance efforts support States and other Federal agencies in development and implementation of State Certification Plans and applicator certification programs; in the development and operation of applicator training programs; and by providing general technical support to State and Federal pesticide programs. Hazard evaluation is supported by investigations of the causes and effects of pesticide accidents.

The major influence on program operations in 1976 is the October 21, 1976, deadline for full implementation of the FIFRA, as amended. On the basis of regulations and guidelines promulgated in 1975, reregistration and classification action will have to be completed on 30,000 federally registered products, in addition to the normal yearly base workload of new applications and amendments. October 1976 is equally significant to the States since they are required by that time to have certified and trained most, if not all, of the estimated 2.0 million private applicators and 100,000 commercial applicators. Failure by any States to have certified enough applicators to adequately meet their pest control needs by October 1976 would have serious repercussions on the economic and food production capabilities in those States.

Summary Output Table

	1975	1976
Normal yearly base workload of registration and tolerance actions...	15,000	15,000
Reregistration and classification of presently registered interstate and intrastate products.....	5,000	22,000
State certification plans submitted for review action.....	20	35

	1975	1976
States with limited applicator training programs in operation....	15	40
States with certification programs in operation.....	5	50
Final publication of regulations:		
Registration of pesticides.....	March 1975	
Guidelines for registration.....	April 1975	
Applicator certification standards.....	October 1974	
Requirements for approval of State Plans..	March 1975	
State registration for special local needs	May 1975	

Pesticides

Abatement and Control

Registration and Tolerances

	1975	1976	Change
Registration and tolerances.....	$7,654,200	$8,114,200	+$460,000

The registration and tolerances program's major efforts include registration of all pesticide products, setting residue tolerances for pesticide products applied to food and feed crops, establishment of criteria and standards for product registration, classification, and tolerances, and conduct of special chemical reviews and other studies. The major thrust of the program during 1975, 1976 and part of 1977 will be to accomplish registration and classification of 15,000 intrastate products and the reregistration and classification of all 30,000 federally registered pesticide products by October 21, 1976, in order to comply with the deadline specified by Section 4 (c)(2) of the Federal Environmental Pesticide Control Act of 1972.

1975 Program

During 1975, final regulations governing the registration and classification of pesticides will be promulgated, and the actual reregistration and classification of products will begin. It is expected that only about 10 percent of the most widely used products are likely to be reregistered and classified by the end of the year, including a few of the more widely used intrastate products. These efforts will be in addition to the normal annual workload of processing new products, amendments, supplementary registrations, and tolerance petitions. The Agency also expects to review and approve some State plans for experimental use permits under Section 5 of FIFRA and also some State plans to register pesticides for special local needs. Prompt review and approval action on these plans will be essential for the timely initiation of these programs by the States.

1975 Accomplishments

- Complete reregistration and classification of about 5,000 products;

- Process normal annual workload of registrations and tolerance actions;

- Review about five State experimental use permits plans; and

- Review and approve about 10 State plans to register pesticides for special local needs.

1976 Program

During 1976, our efforts to complete the reregistration and classification of all registered products will have top priority. It is expected that action will be completed on 22,000 products or more, in addition to the normal workload during 1976, with the remaining reregistration and classification actions being completed by October 21, 1976. Marked improvement is expected in the efficiency of registration processing during the 1975-1976 period as a result of a more responsive reorganization and procedural improvements and better registration guidelines. Even so, demands placed on the Registration Division are expected to stretch its manpower to the limit. In addition to product reregistration, there will be a significant increase in required standard-setting activities as part of the overall classification procedures. In 1976, about 200 product groups will need to be reviewed to determine suitable terms of classification to offset acute local hazard. The more stringent use restrictions under Section 12(a)(2)(G) of FIFRA will require us to evaluate considerable more minor crop registration applications and tolerance petitions. An increased rate of intensive socio-economic cost/benefit reviews is also expected. Also, most States have indicated they intend to take advantage of Section 24(c) to register products to meet special local needs. This will require the agency to work closely with States in the preparation of submissions for certification under Section 24(c) and subsequently to take review actions to assist States in implementing these plans.

Purpose of Increase

The increase will provide funds to contract out some subprofessional, clerical, and data support functions to expedite peak workload processing and will provide for the full-year cost of the October 1974 pay raise.

Pesticides

Abatement and Control

Monitoring

	1975	1976	Change
Monitoring.....	$4,543,200	$4,564,500	+$21,300

EPA's pesticides monitoring program implements the hazard evaluation strategy. It includes: epidomiologic studies on the acute and chronic long-term human health effects from pesticide exposure; monitoring of pesticide residues in air, water, soils, and other media to determine levels and trends and anticipate the development of hazardous conditions; and analysis of routine samples of pesticide products taken from processing establishments and the market place to determine conformity with their labels. All monitoring activities are coordinated within the framework of the National Pesticides Monitoring Plan. Under this plan, data developed by other Federal and State agencies are also evaluated to provide a means for evaluating the hazard of pesticides in the environment and establishing an early alert system.

The new epidemiologic studies program, which was redesigned in 1975 to be directly responsive to regulatory decision making needs, has been conducting pesticide hazard evaluations in 12 States through contracts with universities or State health departments. Studies will now be made on new pesticides for which 15 to 20 new permits are issued each year and for which industry developed human exposure data has previously been poor or nonexistent. In addition, a new approach is being taken to obtain an incidence rate on the number of acute poisonings occuring from pesticides each year. A team of specialists will review admission records of 10 percent of the Nation's hospitals to obtain medically verified data on acute cases. Major emphasis will be given to chronic effect determinations through studies of highly exposed persons (about 3,000) from occupations such as pesticide manufacturing and formulating workers, pesticide applicators, farm workers, and householders. These individuals will be matched with control subjects and medically examined for suspected toxicologic effects. In addition, about 30 special studies will be undertaken and specifically oriented to short-term problem oriented needs including collection of

data in support of cancellation actions, suspect chemical reviews, and substitute chemical reviews.

1975 Accomplishments

- Implementation of the redesigned epidemiologic studies program;

- Continued sampling and analysis of pesticide residues in soil, water and air; and

- Chemical analysis of 4,500 pesticide product samples for conformity to label.

1976 Plan

During 1976, the pesticide monitoring program will continue to provide data to evaluate the hazard of pesticides in the environment with increased emphasis on those problems requiring hard monitoring data to support pending regulatory decisions. Responsiveness of monitoring activities will be increased, and turn around time of the chemical analysis of product samples will be reduced. The epidemiologic studies program will carry on efforts to obtain data on acute pesticide poisonings by investigating hospital admission records, and will increase efforts to monitor for unforeseen health effects in the vicinity of pesticide applications under experimental use permits issued by EPA and the States. Residue profile monitoring will be continued, particularly to develop a quick response and alert system on pesticide problems of current concern. Analysis of market samples will continue, with increased efficacy testing being performed within the limits of available resources.

Purpose of Increase

The increase will cover the full-year cost of the October 1974 pay raise.

Pesticides

Abatement and Control

Technical Assistance

	1975	1976	Change
Technical assistance..	$7,324,500	$16,873,400	+$9,548,900

The top priority of EPA's pesticides technical assistance program is to support States in the development and full scale implementation of applicator training and certification programs. This is the key element in the implementation of the use control strategy. By October 21, 1976, FIFRA requires that "restricted use" pesticides be available only to applicators
tions governing applicator standards and requirements for approval of State plans. Since there will be no Federal certification programs, it will be necessary for each State to develop and implement its own certification program or face the unavailability of restricted use pesticides.

As a basis for certification, applicators must have a required level of competency which meets the Standards for Pesticide Applicators published in the Federal Register, October 1974. A major part of EPA's technical assistance resources will be devoted to the accomplishment of these objectives during 1975 and 1976. However, additional technical assistance will also be needed by States to ensure they meet their other responsibilities under statutory requirements of the Act, including experimental use permits and State registrations for special local needs.

Technical assistance resources also support EPA's accident investigation program, which contributes to the hazard evaluation strategy by determing the cause and effects of pesticide accidents.

1975 Program

Top priority efforts in 1975 are applicator training and certification. Following the promulgation of EPA's "Applicator Certification Standards" in October 1974 and "Regulations for Approval of State Plans" expected in March 1975, the States with EPA assistance will develop and, after

approval, begin implementation of their plans and programs for applicator certification.

EPA and the Department of Agriculture's Extension Service have jointly developed a program for training pesticide applicators to meet the certification standards. It is estimated that over two million private applicators and over 100,000 commercial applicators will require certification. Agreement has been reached on a joint EPA/USDA-CES training program approach wherein EPA will provide funds and training materials and the State Cooperative Extension Service in coordination with the State local agency will provide the necessary applicator training. In order to meet the October 1976 effective date of the Act, this training program must be largely completed during 1976.

FY 1975 Accomplishments	Completion Dates
- Publish regulations on applicator certification standards.....	October 1974
- Publish regulations for approval of State plans.....	March 1975
- State draft certification plans submitted for EPA review action	20 States by June 1975
- States with limited applicator training programs in operation.....	15 States by June 1975
- States with applicator certification programs in operation.....	5 States by June 1975

1976 Plan

Most States have designated a lead agency to administer their applicator certification plans and programs, and about 20 will have submitted their plans for approval and publication in the Federal Register by the end of 1975. Key factors in the delayed timetable are: many States have biennial sessions of their legislatures in late 1975 and only one State in each EPA region is expected to complete an acceptable Certification Plan in 1975. There is also a shortage of resources available at the State level to fund the implementation of Statewide certification programs, and most States will

require some initial financial assistance under Section 23(a)(2) of FIFRA to "tool up" and get their programs into operation. It is anticipated that fees and/or State appropriations will be sufficient after two years or so to finance future certification programs after the initial first round certification efforts are completed. We are therefore, requesting $1.8 million to assist the States, through grants and contracts, in financing the initial start up costs for the program.

1976 will be the key year for training pesticide applicators to meet certification standards. While we hope to have most State training programs fully operational early in 1976, over two million applicators will have to be certified by October 1975. The major training seasons coincide with the period between crop seasons, i.e., November-March. The winter of 1975-1976 is the period when most of the applicator training must take place.

Support of these State and joint EPA-State activities will place an overwhelming burden on the technical assistance resources available through regional offices. We are therefore requesting an increase in funding to meet these needs. 1976 activities will concentrate on the extension of certification and training efforts by States, as well as directing assistance to those States which initiated programs in 1975 and which have operational problems in early implementation.

The increase will provide $1.8 million for grant and contract support for States' certification programs under Section 23(a)(2) of FIFRA; and $7.2 million to provide grant and contract support for State applicator training, including funding through USDA/ES to State Cooperative Extension Services; $500 thousand to support increased regional technical assistance to assist States in the implementation of their applicator certification programs and other State responsibilities under the Act; and $48,900 to cover the full-year cost of the October 1974 pay raise.

Pesticides

Enforcement

	1975	1976	Increase or Decrease
Budget Authority			
Pesticides enforcement...	$3,408,500	$3,582,900	+$174,400
Total.....	3,408,500	3,582,900	+174,400
End-of-Year Employment			
Pesticides enforcement	153	153	...
Total.....	153	153	...

Purpose

The EPA pesticides enforcement program includes the registration and inspection of pesticide producing establishments; the surveillance of pesticides products on the market place, imported pesticide products, experimental use permits and pesticide uses; and the initiation of enforcement actions when violations are detected, including civil actions, criminal prosecutions, stop sales, and injunctive actions as required to implement the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. The major enforcement program goal is to insure compliance with the FIFRA through the use of these tools.

There are an estimated 6,500 producers of pesticides, as well as millions of users of pesticides, all with a potential toward causing human health problems. The major role of enforcement in the total EPA pesticides program is to insure that the registration requirements of the Act, discussed under the pesticides abatement and control program, are being adhered to and that pesticides are being used in accordance with their registered labels. In addition, FIFRA gives EPA the authority to enter into cooperative enforcement agreements with States. In this regard, EPA expects to begin involving the States in a major role in implementing the FIFRA during 1976, particularly with regard to market surveillance, use surveillance, and sharing evidence for enforcement actions.

Although all States have some type of pesticide enforcement program, there is a need for an overall Federal effort to channel singular State actions toward a national enforcement program. EPA intends to pursue such agreements with States in 1976. Emphasis will be placed on developing a cooperative climate whereby the Federal Government manages overall national policy within which States can operate, based on local need.

1975 Program and Accomplishments

In 1975, EPA plans to develop an inspection program of the required books and records of producer establishments and check a cross-section of these firms' records with those required under Section 7 of the Act. The Agency will register approximately 6,500 establishments producing pesticides and prepare assessments of current State enforcement authorities, capabilities, programs, and resources with a view toward greater Federal/State cooperation. A program of pesticide use surveillance of products suspected of presenting hazards to human health and the environment will be developed and EPA will check shipment and use of 100 experimental use permits. EPA will inspect approximately 2,500 pesticide producer establishments; collect approximately 4,500 product samples; and initiate an estimated 200 stop sales, 600 civil actions, and 20 criminal prosecutions. Finally, EPA is assisting the U.S. Customs Service in developing regulations for the importation of pesticides and devices under Section 17 of the Act.

1976 Plan

The pesticides enforcement program for 1976 will be a continuation of on-going activity to inspect products on the market to determine if they comply with the terms under which they were registered. In addition, the program will provide for the continuation of the activities and responsibilities initiated in 1974 to implement the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. These include the inspection of manufacturers and formulators of pesticides, the registration of pesticide producers, and the surveillance of pesticide usage with a view toward checking environmental insults and protecting human health. Also, the surveillance of experimental use pesticides will be continued. Pest control operators will be interviewed to aquaint them with their new responsibilities under FIFRA. The sampling program will be refined to shift from a somewhat random approach against violative products to factor in information on pro-

ducts with high production levels and products whose use could potentially affect human health or cause environmental harm.

In keeping with the emphasis on greater Federal/State cooperation as defined in Section 23(a)(1) of the Act, the Agency expects to involve a number of States in the enforcement of FIFRA. State officials are more closely associated with both the pesticide producers and users than are EPA headquarters or regional offices. Therefore, State agencies are in a unique position to complement the Federal pesticide enforcement program, particularly in the areas of market and use surveillance and in the sharing of evidence for enforcement actions. Although all 50 States have some type of pesticide control program, in general, resource limitations and staff capabilities hamper the effectiveness of these programs.

The most significant change in the pesticides enforcement program will be the shift in emphasis from separate Federal and State pesticide programs toward integrated programs with EPA serving as a coordinating focal point.

The Agency is developing a general Federal-State Cooperative Enforcement Agreement which will outline areas of responsibility for EPA and the States and will encourage States to cooperate by reducing Federal presence in States that do cooperate. This shift will be gradual with EPA encouraging one State in each region to cooperate in the enforcement of FIFRA.

In 1976, EPA will also develop a strategy for surveillance of the use of restricted pesticides by certified applicators and develop guidance for the enforcement of pesticide disposal regulations. A sampling program for those devices declared to be subject to the Act under Section 25(c)(4) will also be prepared.

Purpose of Increase

The proposed increase will provide for the full-year cost of the October 1974 pay raise.

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Pesticides

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processess and Effects.....	$11,193,000	$11,197,900	+$4,900
End-of-Year Employment			
Processes and Effects.....	148	148	...

Purpose

This program supports the Agency's pesticide programs including development of data required to support administrative reviews and litigations; monitoring; development of new methods of pest control; and development of long term pesticides strategy. Major areas of on-going research include: (1) determination of human health effects; (2) development of pesticide residue analytical methods; (3) development of model ecosystems; and (4) determination of ecological effects.

Pesticides

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects.....	$11,193,000	$11,197,900	+$4,900

EPA conducts an extensive research program on pesticides released into the environment to determine more precisely their effects on human, animal, and aquatic life and to develop better analytical methods for measuring pesticide residues in plant and animal tissue. A variety of toxicological studies are carried out to determine the acute toxicities of pesticides in mammals and aquatic organisms, the distribution and effects of pesticides on mammalian organ systems, and their effects on metabolic reactions, reproduction, and behavioral responses. Laboratory bioassays of aquatic animals and organisms are conducted to determine acute and chronic toxic effects of pesticides on fresh and salt water life. This effort provides the knowledge of levels and pathways of pesticides contamination necessary to support pesticide registration, toxic effluent standards, water quality criteria for estuarine and coastal waters, and ocean disposal permits. Analytical methods for pesticides residues are developed for the monitoring programs of EPA, State, and local governments. These include determination of pesticides in human tissue (National Human Monitoring Program), soil, air, and water. Research is being carried out in cooperation with the National Science Foundation and the Department of Agriculture on new and improved pest control methods to further the search for environmentally safe alternative control techniques. In the substitute chemicals program, initiated in late 1974, emphasis is being placed on a thorough evaluation of chemicals commonly used as substitutes for pesticides recently cancelled or under litigation. Mammalian toxicology studies in this program emphasize, mutagenesis and carcinogenesis, and new methods are being developed in inhalation toxicology. These compounds are being examined in laboratory models of terrestrial and aquatic ecosystems, and are being analyzed chemically for impurities known to be toxic.

1975 Program

The pesticide research program for 1975 includes the development of inhalation toxicology methods for pesticides and a study of acute inhalation effects of alternate chemicals. Also to be conducted are complete mutagenesis tests on alternate pesticides and the development of human exposure studies relating to the safe handling of pesticides (storage, spillage, and disposal) with special emphasis on application to crops and reentry into sprayed fields. Development and evaluation of alternative methods of pest control to minimize the use of some pesticides by the strategic use of natural pest enemies, pathogens, genetic modifications, and insect hormones will be initiated. Analytical methods will be developed to determine pesticides, their metabolites, their degradation products, and formulation contaminants in tissues and environmental media. Finally, technical assistance will be provided to EPA regional and program offices through provision of special studies, consultation, and expert testimony in legal proceedings.

1975 Accomplishments

- Completed a study of agricultural workers which verified a direct correlation between exposure to organophosphate pesticides and urinary metabolites, as measured by a new method developed at EPA laboratories;

- In people accidentally poisoned with a chlorinated organophosphate pesticide, it was found that patients show symptoms as long as tissue residues persist, and that the effects last much longer than with non-chlorinated organophosphates;

- Developed methods for determining hexachlorobenzene in air and human tissue:

- Reported that malathion inhibited the population growth of marine protozoa;

- Identified the presence of an arthropod virus in shrimp exposed to environmental levels of poly-chlorinated biphenyls; and

- Revised the bioassay procedures for EPA's ocean disposal permit program.

1976 Plan

Elements of the 1975 program to be continued in 1976 include development of inhalation toxicology methods, studies of alternate pesticides, development of mutagenesis screening systems, and development and evaluation of alternative methods of pesticide control. Studies on the relationship between viral infection and polychlorinated biphenyls (PCB) exposure in shrimp and studies on the effect of mirex and heptachlor in marine ecosystems will be completed in 1976. Development will be initiated on a sensitive, specific detector for pesticides containing chlorine, sulfur and/or nitrogen as well as an efficient system for collecting and determining pesticides in air. Also, analytic methods for the dioxins in tissues, in environmental media, and in pesticide formulations will be developed.

Purpose of Increase

This increase is required for a minor adjustment in personnel compensation and benefits.

DDT STUDY

Mr. BOLAND. In looking at last year's hearings before the Agricultural Subcommittee, on pages 548 through 556, there was a discussion between Mr. Axelrod of EPA and Mr. Whitten. After reading it, I came away with the question of exactly what the fuss about DDT is. I believe that your comprehensive study on DDT is about to be released. Is that true?

Mr. TRAIN. It will be ready in June, I believe, sir.

Mr. BOLAND. Can you give us a preliminary analysis of what that study reveals in connection with the use of DDT and its effects on the general population or would you prefer not to now?

Mr. TRAIN. I have gone over and had a preliminary briefing on the report several weeks ago. I'm a little hesitant because it is a little out of my own technical field to try to state exactly the report. Jim, could you give an idea of the scope of the report? I think at this point it might be well to avoid the statement of conclusions but try to give the committee an idea of the health effects work and the environmental impact work that we are doing and the process we have gone through in terms of assessing the scientific data available?

Mr. AGEE. Yes.

Our staff has been reviewing all of the available literature and the studies that have been done in the past on DDT in both the health effects area as well as the environmental effects area. For example, in the health effects area we have run down and looked at the research to really try to evaluate what the health effects of DDT really are. Also, in the environmental area we have reviewed the research work that has been done, the studies completed on the presence, quantity, and amount of DDT that is finding its way to the environment, fish toxicology studies, the presence of DDT in fish and birds and other organisms and mammals so that we can really assess what magnitude DDT is and what the problem or the extent of the problem that we have with DDT is.

Our people are evaluating the studies that have been made to determine the persistence, and the presence of DDT; how widespread is DDT in the environment, is it persisting?

We are also looking at some of the medical data that is now just coming to light from the widespread use of DDT particularly during World War II, where DDT was so widely used for health control reasons at that time. But we had some very extensive human exposures of DDT. Military people and populations were actually dusted with DDT. These are the data that our people are evaluating now.

We will have our report completed in June.

PARATHION

Mr. BOLAND. On the bottom of page 554 of the hearings last year Mr. Andrews asked whether a study on the use of parathion over a 30- or 40-year period had been made. Mr. Axelrod responded, "No." Congressman Andrews noted that parathion is a good deal more dangerous in the short run than just about any other pesticide being used.

I am wondering then, if we could come back to the thrust of Mr. Andrews' question which was, "How do you make the judgment between DDT, for example, and parathion in banning one and not banning the other on the basis of possible long-range harmful effects?"

Mr. AGEE. We are more concerned about parathion in the short term. It is not a very persistent chemical like DDT. In DDT it is a long-term exposure because it does not degrade in the air.

Parathion is a very toxic material but it is not transported away from the place that is utilized in such as DDT is. It decays relatively rapidly as compared with DDT. We feel that parathion can be used. It is a registered product now.

We have label restrictions on parathion as on other highly toxic materials as to how they can be used.

It deals not only with worker protection as to how he can use that material but how he can apply it and the rates of application. That is the challenge we have in our registration activities in pesticides, to determine the safe ways we can use some of these very toxic materials. But to directly answer your question on DDT, we are concerned about the long-term exposure and parathion, the short-term exposure.

I would also like to briefly mention that the substitute chemical program, which was authorized under Public Law 93–135 of October 24, 1973 to provide research and testing of substitute chemicals has since had 40 pesticides, including parathion, under study. The review of parathion has been completed and a final report published through the GPO. A progress report of the substitute chemical program was issued April 1975, copies of which have been provided the committee's staff. The report includes a synopsis of 14 of the 24 chemicals under review as substitutes for DDT.

DDT PERSISTENCE

Mr. TRAIN. As part of that persistence factor that DDT does move into the food chain and does get stored in the tissue of various levels of life and persists in this fashion. It does have, through this process, a substantial adverse impact upon the various populations exposed to it in terms of fish, in terms of birds, and higher mammals.

There is no question about these adverse effects of DDT which, as Mr. Agee says, tends to be significant because once it enters the environment, it is substantially there for long periods of time, for years.

Mr. TALCOTT. Whatever happened to the Panamanians who were sprayed with DDT about once a week? Is there any adverse effect? Every time I have been to Panama they just go through the streets and spray the houses, rooftops and everything.

Mr. TRAIN. There is very poor epidemiological evidence on the impact of exposure of populations to DDT. You could say this is true of most chemicals because it is hard to isolate the effects of that particular chemical from other possible effects.

DDT has now been in use since the mid-war period of the 1940's. Whether it was in use in Panama during that period, I don't know. But as we know, the carcinogenic effect of most chemicals, particularly low levels of chemicals tend to not be evidenced for 25, 30, to 40 years.

So if there are epidemiological effects at the present time from DDT, they would only now just be reaching the point of some evidence which would probably be very hard to distinguish from other effects. This is the problem.

All of this is laid out quite fully in our June report.

APPLICATOR TRAINING

Mr. BOLAND. We will turn to page 6, abatement and control. Here we note that you are asking for an increase of $10 million in fiscal 1976 to support the reregistration and classification of over 30,000 federally registered pesticide products by October 21, 1976.

On page P–7, the justifications also note that October of 1976 is significant to the States since they are required by that time to have certified and trained most, if not all, of the estimated 2 million private applicators and 100,000 commercial applicators.

Are the States on target in meeting that deadline?

Mr. AGEE. First, let me deal with the $10 million increase. That is principally, in fact, I think almost totally for training and assistance to the States and farmers for registration. That increase is not specifically for development of the registration process. That is money that we will be using to train operators.

Incidentally, $5 million of that $10 million increase will be transferred to the U.S. Department of Agriculture, to their Extension Service. They will be doing the bulk of the training.

The status of the States in assuming the certification program to certify both commercial and private applicators is coming along fairly well.

We now have, I think, 25 States with acceptable legislation to assume this program; the other 28 are in the process of getting their legislative base change at the State level so they can have a certification program.

We have initial draft plans. Nineteen from States have already been submitted to our agency. They are not official submissions, but they are under review now.

Mr. BOLAND. What happens if the States do not meet their deadline?

Mr. AGEE. We are in very tough shape if the States don't.

The legislation requires that no restricted use pesticide may be used after October 1976, except by a certified operator who has been certified as competent by the States.

We do have criteria out for the States to use in determining that competency of operators.

We feel that they are quite reasonable and most of the States can have a certification program to meet the October 1976 deadline.

We do feel that some States may have to have a rather simple certification program for use after 1976 and update that program the following year.

PESTICIDE MONITORING

Mr. BOLAND. On page P–11, Monitoring, you are only asking for pay cost increases of $21,300.

Is that true?

Mr. AGEE. That is correct, sir.

BATTELLE REPORT

Mr. BOLAND. What is the Battelle report?

Mr. AGEE. I am not familiar with that report.

Mr. JOHNSON. It is a contract study that was let about 6 months ago to evaluate the effectiveness and efficiency of ongoing pesticide monitoring programs.

Battelle made several recommendations about how these programs could be enhanced to yield better information. The study was let as part of a major thrust in the pesticide program strategy to devise a comprehensive hazard evaluation system to help us assess impacts of pesticides quickly and efficiently and to make proper regulatory decisions.

Based upon this evaluation of our monitoring programs as well as other internal studies to determine the best ways to utilize this data in decision-making. By the end of 1976 we hope to have a restructured program and will be coming forward with new proposals after 1976.

Mr. BOLAND. Can problems that have been addressed by the Battelle report be handled with the current level of resources?

Mr. JOHNSON. I think the problems addressed by Battelle can be handled by some very intelligent thinking rather than resources at the moment. They have identified the fact that there are not clear-cut systems of identifying those pesticides to be placed on the monitoring list. For example, there is no clear-cut definition as to the extent to which monitoring sites are chosen. I think we have to do some thinking in this area.

They also recommended that there is a major policy question to be looked at and that is whether the Federal monitoring system can operate dispersed through many Federal agencies and operated under the workers of the Federal working group on test management.

REPORT RECOMMENDATIONS

Mr. BOLAND. Did the Battelle report recommend that State pesticide and monitoring data quality be assessed before incorporation into the National pesticide monitoring program? Did it recommend that?

Mr. JOHNSON. I do not recall whether that was in the recommendation or not. We can provide an answer to that for the record.

Mr. BOLAND. All right.

[The information follows:]

The Battelle Report, Recommendation No. 6 states that: Before State pesticide monitoring data are utilized or incorporated into the National pesticides monitoring program, an in-depth study should be made to assess the quality of these data. Battelle Columbus Laboratory's analysis of the State data, which were provided by the Smithsonian Center for Short-Lived Phenomena, indicate that the quality of State data is questionable with respect to drawing statistical inferences. The reasons are: Different sampling techniques; different sampling frequency and environmental components monitored; different analytical techniques, and lack of a formal data reporting mechanism.

AGRICULTURE EXTENSION SERVICE TRAINING

Mr. BOLAND. The largest increase in your budget under pesticides occurs under "Technical assistance." There is an increase of over $9 million over 1975 for a total of $16,873,000 for 1976.

On page P–15, you note that $1.8 million of the increase is for grant and contract support for States' certification programs, and $7.2 million is to provide grant and contract support for State applicator training. I notice that you mention that some of this work will be done through the Agriculture Department's Extension Service. You indicated about $5 million worth.

Given the nature of the work I would suspect that most of the program could be handled through the Agricultural Extension Service; could it not?

Mr. AGEE. Yes, most of it can. They are skilled in this area. They have experience and know the clientele very well. The other area that the States will have to assume training programs through technical assistance from our Agency would be for roughly 100,000 commercial applicators for which the Extension Service will not undertake the training for these people.

Mr. BOLAND. What is your evaluation of the Agricultural Extension Service training program?

Mr. AGEE. We have every expectation that it will be satisfactory to meet the requirements.

The training program is just now being developed. We have had during this past fiscal year a number of training manuals and the Extension Service has participated in the development of these. We expect the training program to be satisfactory.

PESTICIDES ENFORCEMENT

Mr. BOLAND. On page P–16 under "Enforcement," you have outlined your enforcement program under "Pesticides". The only increase for 1976 is to cover pay costs. I notice you have about 153 people working in this area. Obviously, they cannot begin to cover the waterfront when you are talking about 6,500 establishments producing pesticides and thousands and thousands of different products being produced.

I notice, however, on page P–17, that you plan on inspecting approximately 2,500 pesticide producer establishments, and you also plan on collecting approximately 4,500 product samples.

Will that workload be completed with the 153 people working in this area?

Mr. JOHNSON. Yes; it will be.

The bulk will be completed.

Mr. BOLAND. Do the States complement and support your work in this area?

Mr. JOHNSON. Basically the States sit down and agree on this. The major portions of the task are carried out by EPA. We do have some pilot programs under which States which have larger programs are asked to carry out the largest share.

California has about 50 people working in the State program. That is more than the regional office has and therefore they are able to do the bulk of the work.

Mr. BOLAND. In enforcement activities in pesticides you have about $3.5 million. What are the States doing and what are they contributing in total to the pesticide enforcement program?

Mr. JOHNSON. That is a little hard to evaluate. I do not have the budget for what State manpower is. I would say in terms of the work products we were discussing, inspections and enforcement, et cetera, that the States are probably contributing something on the order of 20 percent, perhaps, of the total efforts, not a large share at the moment.

However, as we have been discussing, the States will be moving into this area in a much bigger way over the next 24 months and providing a much larger share of the efforts during that time.

PESTICIDES RESEARCH AND DEVELOPMENT

Mr. BOLAND. You are requesting about $11.2 million for research and development of pesticides. How is this research and development effort different from that conducted by the Department of Agriculture?

Dr. TALLEY. I believe the Department of Agriculture's research is primarily on the development of pesticides.

We are concerned with being able to monitor pesticides in the environment, determining the secondary effects on the ecosystem and human health.

Mr. BOLAND. Agriculture does not do this?

Mr. TRAIN. This is the portion of the program that was supposed to have been transferred over in the original reorganization. They are concerned with the research on the efficacy of different forms of pest control in terms of the target species whereas we are more concerned with the nontarget species, the ecological effects and human health effects.

They doubtless may do some in this area.

Dr. TALLEY. There is a gray area. The idea is not to separate them, but continue the close cooperation that has been going on.

Mr. BOLAND. I presume you meet regularly with the pesticide people in the Department of Agriculture?

Dr. TALLEY. Yes.

Mr. TRAIN. We have an interagency agreement with the Department of Agriculture. Secretary Butz and I sit down on many occasions to discuss the implementation and better coordination in this area.

We have joint programs in integrated pest management where we have both provided some funding for a very important pest-management program which I suppose really does fall into a little bit of both jurisdictions.

BANNING OF PESTICIDES

Mr. BOLAND. Have your research efforts indicated any other pesticides which may be banned like DDT?

Dr. TALLEY. I think this will be covered in the chemical program.

Mr. AGEE. Mr. Chairman, we have that program.

We have a dozen pesticides at this time that are under review within our criteria and evaluation division on pesticides. We systematically review a number of products to address the question as to whether or not we should continue to use them.

It will also support our reregistration program that we have. But we have a number that have been cancelled and suspended and we are holding hearings on them now. That is an on-going program.

Mr. TRAIN. Aldrin, dieldrin, chlordane, and heptachlor are other ones in point.

Mr. BOLAND. Is DDT the only one that has been banned?

Mr. TRAIN. Aldrin and dieldrin have been. I would imagine there are very few that would be of the kind of significance that DDT was.

Mr. BOLAND. You may add to your response for the record.

[The information follows:]

SUSPECT CHEMICAL REVIEWS

The Agency has a well organized program of suspect chemical reviews under the direction of the Criteria and Evaluation Division, Office of Pesticides Programs. A three-phase approach is used: (1) scientific validation of new evidence; (2) effect analysis; and (3) comprehensive biosphere and socioeconomic review.

Ten chemicals have been under study during this fiscal year's operations and review completed on toxophene, strobane, 6EBDC fungicides, and carbaryl. Still under review are, arsenic, lead, rotenone, DDVP, aramite, and chlorbenzilate. We expect about another 12 chemicals will be reviewed during 1976.

The Agency is currently involved in active hearings on aldrin/dieldrin, mercury, mirex, chlordane/heptachlor, and zero tolerances.

RADIATION

Mr. BOLAND. We will turn to Radiation and place pages R–1 through R–16 in the record.

[The pages follow:]

Radiation

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$4,569,900	$4,337,100	-$232,800
Research and Development.....	2,637,700	1,640,000	-997,700
Total.....	7,207,600	5,977,100	-1,230,500
End-of-Year Employment			
Abatement and Control	191	174	-17
Research and Development	72	57	-15
Total.....	263	231	-32*

*There is an additional reduction of 30 positions for off-site monitoring, which is reflected under Advances and Reimbursements in the summary tables.

Overview and Strategy

Radiation presents an environmental public health risk from numerous sources, to which some public exposure is inevitable. All radiation exposures result in some adverse health effect. This basic concept governs EPA's approach to assessing and preventing public health risk from environmental radiation.

Public exposure to ionizing radiation results from natural background levels, medical x-rays, manufacturing processes, from fallout due to weapons tests, occupational exposure, and from various aspects of the nuclear power industry (fuel processing, reactor operations, waste handling, etc.). Of these, natural background forms the largest part, followed by man-made sources; exposure to nonionizing radiation comes from radio transmissions; radar, microwave sources, and others.

Given the diverse nature of radiation sources and the rapid development of new ones, there is a Federal responsibility to carry out research on radiation and health, to assess

the impact of sources on the environment, to develop standards and guidance for their control, and to document radiation levels and exposures that occur. EPA's role in radiation is unique in that it encompasses all sources of ionizing and nonionizing radiation whether environmental or nonenviornmental in nature; no other Federal agency has this broad responsibility.

The EPA radiation program is directed toward preventing all unnecessary environmental exposures to ionizing radiation. The need for standards of exposure to nonionizing radiation is undergoing review. The basic authority for these activities is set forth in the Atomic Energy Act (the responsibility for portions of which were transferred to EPA in Reorganization Plan No. 3), the Public Health Service Act, and the authorities of the Federal Radiation Council which were also transferred to EPA in Reorganization Plan No. 3. Additional authority is contained under the National Environmental Policy Act wherein environmental impact statements are reviewed for proposed Federal nuclear energy facilities and programs.

In order to fulfill its responsibilities, EPA pursues its basic radiation protection strategy through three interdependent functions: criteria and standards development, technology assessment, and environmental assessment.

EPA conducts health effects research for ionizing and nonionizing radiation to better assess the potential risk of ambient radiation exposure. This is necessary in order to set standards for environmental radiation from the uranium fuel cycle, to set medical x-ray guidance, and to assess the impact of radioactive discharges associated with various manufacturing processes. The priority and timing of these efforts are determined by several factors: the degree of control possible, the anticipated growth of the sources, and the extent of exposure due to the source. As a result, EPA will be completing an environmental standard for the uranium fuel cycle in 1975 since a large increase in nuclear generated electric power is projected.

Technology assessment provides the capability to perform independent environmental analyses of radiation technologies being applied by other agencies. As a result, a base is established from which substantive reviews of environmental impact statements are possible and from which the requirements of the National Environmental Policy Act can be carried out.

To determine the level of radiation exposure to the public, EPA carries out extensive monitoring activities and other environmental assessments, making this information available in publication form. EPA will continue to reorient the monitoring networks toward specific sources of radiation and away from the fallout oriented ambient measurements, since the reduction of above ground nuclear testing makes fallout a less significant part of the total exposure (a standby network will be maintained).

One significant aspect of monitoring is the radiological surveillance EPA performs for the Energy Research and Development Administration (ERDA) in off-site areas adjacent to ERDA's Nevada Test Site. The program is organized around three kinds of surveillance -- routine, special, and test oriented. In the routine surveillance program, sampling (air, milk, and water) and radiation exposure measurement networks are maintained to record environmental radiation levels and their variations. "Special" surveillance includes monitoring for possible migration of test related radioactive debris in groundwater on and around the site and soil sampling programs. The test oriented program involves positioning radiation monitoring teams in the area most likely to be affected by a release of radioactive material to the atmosphere. Test oriented surveillance includes sampling by aircraft and long range tracking of debris in the event of a radioactive release. The work that EPA does for ERDA is reflected under the Advances and Reimbursements accounts.

The legislative authorities in radiation set out enforcement responsibilities for other agencies, notably the Nuclear Regulatory Commission, and therefore EPA has no activities in this area with the exception of regulating the issuance of permits to discharge wastewater that may contain radioactive material. EPA does maintain an overview, however, in order to assure that the standards and Federal radiation guidance which are set are followed.

EPA also makes assistance available to States and localities through its regional offices and laboratories. This includes assistance with drafting Emergency Response Plans and analysis of monitoring samples.

The 1976 program includes a decrease of 62 positions: 17 positions from the abatement and control program, 15 from research and development and 30 from the ERDA reimbursed off-site monitoring program in Nevada. In addition, in 1975, 10 positions are being transferred from the radiation program to the noise control program. The abatement and control reductions

will be applied to higher priority programs. Standards and regulations development and ambient monitoring will not be affected. Research efforts will be redirected to critical areas and gaps in knowledge where no other agency has an on-going program or where there is a specific environmental problem which requires EPA attention. The 30 position reduction from the 88 people currently performing off-site monitoring will be implemented after March 31, 1976, at which time initiation of the Test Ban Treaty and Threshold Limitation Agreement is expected to decrease the level of test activity at the Nevada Test Site.

Summary of Increases and Decreases

1975 Radiation Program	$7,207,600
Abatement and Control	-232,800
A decrease associated with the reduction of program personnel.	
Research and Development	-997,700
A decrease associated with the reduction of personnel and narrowing the scope of the program.	
1976 Radiation Program Request	5,977,100

* This program also reflects the reduction of 30 positions from the ERDA off-site monitoring program. (Funds are reimbursed from the Energy Research and Development Administration).

Radiation

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control			
Standards and Guidelines...	$789.4	$796.7	+$7.3
Monitoring.....	1,558.5	1,407.8	-150.7
Technical Assistance.....	2,222.0	2,132.6	-89.4
Subtotal.....	4,569.9	4,337.1	-232.8
Research and Development			
Processes and Effects.....	2,637.7	1,640.0	-997.7
Total.....	7,207.6	5,977.1	-1,230.5
End-of-Year Employment			
Abatement and Control			
Standards and Guidelines...	27	27	...
Monitoring.....	59	50	-9
Technical Assistance.....	105	97	-8
Subtotal.....	191	174	-17
Research and Development			
Processes and Effects.....	72	57	-15
Total.....	263	231	-32

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Radiation

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Standards and Guidelines.....	$789,400	$796,700	+$7,300
Monitoring.....	1,558,500	1,407,800	-150,700
Technical Assistance.....	2,222,000	2,132,600	-89,400
Total.....	4,569,900	4,337,100	-232,800
End-of-Year Employment			
Standards and Guidelines.....	27	27	...
Monitoring.....	59	50	-9
Technical Assistance.....	105	97	-8
Total.....	191	174	-17

Purpose

The radiation program's abatement and control activities have, as their main focus, EPA's responsibilities for setting specific standards for radiation levels in the general environment and for setting the basic policies which provide the basis for all Federal radiation protection programs. Other components of the program contribute to guidelines and standards effort, or to the improvement of State, local, or other Federal radiation control programs. These include surveillance and monitoring to determine levels of environmental radiation; provisions of technical assistance to other governmental agencies; and the conduct of reviews of federally supported or licensed projects which are a source of environmental radiation and related engineering studies.

Radiation

Abatement and Control

Standards and Guidelines

	1975	1976	Change
Standards and guidelines.....	$789,400	$796,700	+$7,300

EPA has two primary responsibilities associated with radiation protection standards and guidance. The first responsibility is to establish environmental protection standards to limit radiation levels in the general environment for both ionizing and nonionizing radiation. The second involves the formulation of basic Federal policies on radiation protection standards.

1975 Program and Accomplishments

- Complete the uranium fuel cycle standards;
- Review the need for plutonium standard; and
- Review the need for nonionizing radiation standards.

1976 Plan

- Publish guidance further defining the limit, "as low as practicable", presently contained in Federal Radiation Guidance;
- Evaluate x-ray exposure reduction in Federal health care programs; and
- Develop medical x-ray guidance.

Purpose of Increase

The $7,300 increase is to provide for the full-year cost of the October 1974 pay raise.

Radiation

Abatement and Control

Monitoring

	1975	1976	Change
Monitoring.....	$1,558,500	$1,407,800	-$150,700

The purpose of EPA's radiation monitoring activity is to determine the levels of existing radiation from specific sources, identify critical pathways, and evaluate the impact of the source on the environment. The program determines any changes occurring in the radiological quality of the environment, the magnitude of this change, and the nature and probable source of the contaminant. Population exposure estimates are made from all sources of ionizing and nonionizing radiation to determine if environmental levels are within established radiological guidelines and standards. The effectiveness of existing control programs is also evaluated and envrionmental radiological quality data from monitoring programs is published. The program also provides consultation and technical assistance on monitoring activities to States and other Federal agencies.

1975 Program and Accomplishments

- Continue studies to determine the impact of nonionizing radiation on man and the environment;
- Continue field investigations of uranium mill tailings problem in nine western States;
- Operate existing radiation surveillance networks and collect and publish radiological data;
- Develop models for predicting environmental impact of radioactive discharges from nuclear facilities and other radiation sources; and
- Conduct environmental radiological assessment following accidental releases of radioactivity from nuclear facilities.

1976 Plan

- Collect and analyze data on radioactivity in air, water and milk;
- Establish an actinide soil monitoring program; and
- Complete dose summaries from all sources and compare with standards.

Purpose of Decrease

The decrease reflects lower personnel costs due to conversion of Radiation Data and Reports from a monthly publication to an annual report.

Radiation

Abatement and Control

Technical Assistance

	1975	1976	Change
Technical assistance.	$2,222,000	$2,132,600	-$89,400

Technical assistance is a broad classification which can be divided into three major components: (1) State assistance, training, and regional program development; (2) technology assessment, including the environmental impact statement review of nuclear facilities; and (3) engineering studies of new technology. The primary efforts of the State assistance element are oriented toward working with State radiation control programs in their developmental efforts and bringing to this effort a national perspective. This is accomplished by a small staff in each of EPA's regional offices. The technology assessment effort is concerned with evaluating the impact of nuclear technology on the environment. As part of its overall responsibilities in technology assessment, EPA reviews environmental impact statements submitted by other Federal agencies and conducts detailed evaluations of proposals for the design, construction, and modification of radiation producing facilities which are to be operated by Federal agencies or are subject to Federal regulation. In order to provide the technical base necessary to conduct these environmental assessments, EPA also conducts engineering studies aimed at providing a better understanding of the design and operation of new technologies as they impact on the environment (e.g., new types of power reactors or designs of fuel processing plants).

1975 Program and Accomplishments

- Continue the review of environmental impact statements (estimated 45 routine reviews);

- Continue an analysis of the environmental impact of low-level waste disposal;

- Complete the review of an ERDA study of light water reactor accident risk; and

- Continue providing technical information and assistance to State and local governments, including promotion of State Control programs, laboratory analysis of special samples, and development and testing of emergency plans.

1976 Plan

- Continue the review of environmental impact statements (estimated 65 routine reviews);

- Assess the environmental impact of new power reactor technology-high temperature gas-cooled reactor and liquid metal fast breeder reactor; and

- Continue providing technical information and assistance to State and local governments, including laboratory analysis of special samples, and development and testing of emergency plans.

Purpose of Decrease

The decrease reflects lower personnel costs due to the consolidation of some program activities.

Radiation

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and effects.....	$2,637,700	$1,640,000	-$997,700
Total.....	2,637,700	1,640,000	-997,700
End-of-Year Employment			
Processes and effects.....	72	57	-15
Total.....	72	57	-15

Purpose

The radiation research and development program provides EPA with an information base for standards setting and regulatory actions. The program consists of two parts: studies of the health effects resulting from exposure to radiation and studies of the transport of radiation through the environment.

Radiation

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects.....	$2,637,700	$1,640,000	-$997,700

The health effects of radiation are studied by epidemiological and toxicological methods. Adverse health effects can result from exposure to ionizing radiation such as radionuclides emitted by nuclear power reactors or from high dose exposure to nonionizing radiation as found in the near field of high power transmitting antennae. The scope of the radiation program in health effects of ionizing radiation is narrow, being restricted to support of epidemiological studies by the Atomic Bomb Casualty Commission and to limited laboratory studies of the radiotoxicity of krypton-85 and tritium, radionuclides arising from present nuclear power reactor operation. The primary aim of the program of studies of nonionizing radiation is to determine the potential biological significance of chronic exposure at levels below that which can cause thermal stress. Transport studies are concerned with describing the pathways by which selected radionuclides can reach man. The radiation pathways research is an integral part of the program to understand human exposure and consequent health effects. The problem is one of describing the transport of radionuclides through the biosphere by the various pathways which govern their movement, chemical and physical change, and ultimate fate. The program has been focused on the most important radionuclides from the point of view of the long range problems associated with the fast breeder reactor program.

1975 Program

The objectives of the health effects program include the evaluation of the latent effects of acute exposure to ionizing radiation (Atomic Bomb Casualty Commission) and definition of the dose response curve for incidence of thyroid tumors in children exposed to diagnostic levels of radioiodine. Determination of the carcinogenic potential of implanted particules of plutonium in the lungs of hamsters is being completed in the 1975 program. Also, the acute and chronic effects of inhalation and whole body exposure of guinea pigs to krypton-85/air mixtures are being defined. Finally, an identification of the biological effects of nonionizing radiation in animal models is being made.

The radiation pathways research program includes studies of the physical/chemical characteristics of plutonium released from nuclear facilities and deposited within the biosphere. Meteorological factors associated with resuspension of plutonium from contaminated land surfaces are being quantified. Also, an investigation is being conducted on the chemical kinetics of plutonium in soil as affected by soil type and indigenous plants. Finally, a determination is being made of the magnitude of plutonium absorption by aquatic plants.

1975 Accomplishments

- Initial studies of teratogenicity of electromagnetic radiation have been negative;

- Tissue analyses from juvenile goats have indicated that intestinal absorption of plutonium from in vivo and in vitro labeled milk is approximately the same;

- Four different chemical/physical forms of plutonium particulates have been identified from resuspended soil;

- Concentrations of plutonium on root systems of aquatic plants have been observed under laboratory conditions; and

- Uptake of tritiated hydrogen gas has been demonstrated for plant species.

1976 Plan

In 1976, median lethal exposure data for krypton-85 inhalation will be correlated with tissue distribution studies. Epidemiological studies will be continued using retrospective data from singularly exposed population groups such as is the case with the Atomic Bomb Casualty Commission studies. Radiotoxicological studies of tumorigenesis, life span shortening and effects on reproduction of rats exposed continuously to tritiated water will be conducted. Effects on the fetal and embryonic stages of growth will be emphasized. Studies of the effects of nonionizing radiation on biopolymers (bovine serum albumin, ribonuclease) will be completed. Studies on teratologic and neurobehavior of small animals will be conducted using nonionizing radiation as the stressor. Also, a determination will be made of the isotopic differences between 238 Pu and 239 Pu soil plant transfer and storage for correlation with biological effects. A determination will be made on the effects of rainfall, irrigation, and fertilization on the migration of selected radionuclides in soil. Finally, an investigation will be made on the exchange rates and effects on vegetation of gaseous tritium with an accompanying determination on the environmental variables controlling this exchange.

Purpose of Decrease

In an effort to release research funds for use in other areas, the radiation program will be more tightly focused in 1976 on the health effects of nonionizing radiation and on a limited group of long lived ionizing radionuclides associated with the fast breeder reactor program. The Agency will also continue to participate in the Atomic Bomb Casualty Commission Study. This will permit a reduction in funding of $1 million, and a decrease of 15 positions.

RADIATION ABATEMENT AND CONTROL

Mr. BOLAND. Describe the efforts of EPA in the radiation control area. You are requesting $4,337,000 in abatement and control and $1,640,000 in research and development.

What about abatement and control?

Mr. STRELOW. This area of concern deals with both ionizing radiation and nonionizing radiation. Essentially our focus is set to standards and guidelines for ambient radiation exposures to the general public as opposed to regulating specific facilities such as the Nuclear Regulatory Commission is responsible for regulating.

The Nuclear Regulatory Commission must set emission or effluent standards that will be consistent with our ambient standards.

We also play an important role in overall monitoring. We are the only agency that has a comprehensive responsibility for monitoring the status of exposures nationwide.

RADIATION REIMBURSEMENT PROGRAM

Mr. BOLAND. How much does EPA expect in 1976 by reimbursement or transfer for radiation activities? Is EPA reimbursed?

Dr. TALLEY. Yes, sir. We have, for example, 88 people offsite from the Nevada test site.

ERDA has us conducting the surveillance for possible venting during the nuclear testing program. They translate into $1.7 million approximately.

Mr. BOLAND. Could not the functions that you are engaged in here be provided at a lesser cost if done by contract or reimbursement with another agency such as ERDA or the NRC? Could this be legally done?

Dr. TALLEY. Do you mean reimbursement for the entire program?

Mr. BOLAND. Both.

Dr. TALLEY. Part of the difficulty that the old AEC had was that there was a lack of credibility of the development agency also acting as its own regulator. Indeed the genesis of the reimbursable program at the Nevada test site was simply because it turned out, when everything was considered, that it was in the public interest to conduct these programs outside of the AEC.

The same holds for the ambient monitoring program conducted in the Office of Radiation Programs.

The R. & D. programs conducted by EPA maintain a level of competence so that we are not entirely dependent upon the ERDA R. & D. program for information.

MEDICAL X-RAY STANDARDS

Mrs. BURKE. I heard that medical X-ray is one of the areas included. Do you establish standards for medical X-ray equipment and monitoring that equipment or do you work with States or how does that work out?

Mr. STRELOW. Mrs. Burke, there are really two Federal responsibilities in this area. One is in the Department of Health, Education, and Welfare which has specific standard setting authority.

However, one of the authorities we inherited when the agency was set up was the authority to establish guidance for all Federal agencies to use in their standard-setting activities.

When we talk about medical X-rays here, we are talking about providing guidance from a comprehensive standpoint which then HEW, Veterans' Administration will use in their standard-setting activities.

Mrs. BURKE. Thank you very much.

NOISE

Mr. BOLAND. We will turn to Noise and place pages N–1 through N–22 in the record at this point.

[The pages follow:]

Noise

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$4,889,000	$9,592,200	+$4,703,200
Enforcement....	21,300	521,700	+ 500,400
Research and Development..	544,900	45,000	- 499,900
Total.....	5,455,200	10,158,900	+ 4,703,700
End-of-Year Employment			
Abatement and Control.....	55	75	+20
Enforcement....	1	10	+ 9
Research and Development..	3	1	- 2
Total.....	59	86	+27

Overview and Strategy

Inferential data implies that urban environmental levels of noise are increasing at about 1-2 db (decibels) per decade. This increase is occurring despite the availability of substantial control technology applicable to most major sources of noise. Competitive cost factors and lack of regulation or enforcement have acted as deterrents to the application of such technology. Recent increased public concern has stimulated the need for Federal control of new products sold in interstate commerce and Federal control of noise levels in interstate transportation.

Evaluation by EPA indicates that continuous exposures to urban environmental noise levels averaging above 70 Ldn (weighted day-night decibel level) may be harmful to health, especially when coupled with shorter, more intense exposures in the workplace, in travel, and in various recreational and hobby and home maintenance pursuits. It is estimated that about 13 million people presently reside in areas where the

Ldn exceeds 70. Furthermore, passengers in and operators of most common models of transportation are exposed to noise substantially above 70 dB(A), as is a substantial portion of the working population.

Approximately 100 million people reside in areas where the Ldn exceeds 55, a level clearly identified with marked annoyance. While this level of community noise results from a blending of all types of sources, vehicular traffic, aircraft operations and construction site noise are major factors in the sustained levels.

The Noise Control Act of 1972 provides the basis for the national environmental noise control program in EPA. The legislation generally recognizes the need for Federal regulation of new product noise sources and is preemptive of State regulation for such products. It provides EPA with such regulatory authority and recognizes the unique roles of the Department of Transportation (DOT) and the Federal Aviation Administration (FAA). With respect to interstate surface commercial carriers, EPA promulgates standards for new and in-use vehicles and DOT enforces the in-use standards; with aircraft, EPA recommends regulations and standards for emissions and operations of aircraft and around airports and FAA promulgates and enforces. State and local agencies retain the right to control other in-use product noise problems and can adopt in-use regulations consistent with the Federal regulations in the above in-use situations. The legislation charges EPA with the role of coordinating Federal noise control and research and development activities.

EPA goals are to:

1. Reduce the urban noise levels above 70 Ldn so that less than one million of the estimated 13 million population residing in such areas remains exposed to such high community levels by 1992;

2. Reduce urban noise levels above 55 Ldn so that less than 40 million of the estimated 100 million population residing in such areas remain exposed to such community levels by 1992;

3. Require by 1978 that warning labels be applied to engine powered equipment posing a threat to the operator's hearing and used in a nonoccupational

setting; and

4. Reduce noise levels inside new public transportation equipment to 75 dB(A) by 1980.

These goals are generally achievable by implementing presently available technology or that anticipated from on-going research. In the case of the first two goals, the technology is to be implemented through new product regulations by 1982 with an estimated 10 year turn-over in the product population, i.e., by 1992. However, the attainment of these two goals also requires complementary State and local regulatory and enforcement action allowed by the Federal legislation. Emphasis must thus be given to appropriate Federal technical assistance.

Labeling will be used to augment regulation in those situations where the individual's exposure has health significance and can be substantially controlled by personal protective equipment. Potential nuisances resulting from such equipment can best be controlled by State and local use regulations.

Goal four can be achieved by direct regulation or by the Federal influence on equipment standards through support of mass transit programs.

In order of priority, the major actions EPA is undertaking are:

(1) Reduction of airport and aircraft noise.

(2) Reduction of noise from interstate motor carriers and railroads.

(3) Protection against voluntary high level individual exposure through product labeling.

(4) Reduction of noise from construction sites.

(5) Reduction of noise in the interior of public transport.

Workplace noise exposure is not included in this list of EPA priorities in recognition of separate legislation specifically charging The Occupational Safety and Health Administraction (OSHA) with regulatory and enforcement functions

in this area.

The strategy envisions active, cooperative working relationships with DOT, FAA, the Consumer Product Safety Commission, and OSHA in addition to State and local agencies in carrying out abatement and control and enforcement programs. EPA intends to make full use of research and development programs conducted by the above agencies and DOD, NASA, and the private sector in lieu of establishing a substantial independent research and development effort. As implied by the law, EPA will continue its coordinative function with respect to control and research and development.

EPA enforcement of new product regulations is scheduled to begin in late 1976 for air compressors and in 1977 for heavy and medium duty trucks. Steps must be taken in 1976 through completion of the necessary planning, rulemaking, and informational programs in preparation for enforcement of new product regulations in 1977. Manufacturers have also indicated that they desire the flexibility to verify production before the regulations are effective, i.e., as soon as they are promulgated. EPA will strengthen technical assistance to the States in preparation for their complementary in-use enforcement role, both in areas where new product regulations have been established and in localized problem areas more susceptible to State rather than Federal enforcement.

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Summary of Increases and Decreases

1975 Noise Program.....	$5,455,200
Abatement and Control.....	+4,703,200
An increase associated with additional personnel and contract support to hasten the development of standards and guidelines.	
Enforcement.....	+ 500,400
An increase to provide a noise enforcement capability.	
Research and Development.....	- 499,900
A decrease associated with reprogramming of personnel and funds to higher priority areas.	
1976 Noise Program Request.....	10,158,900

Noise

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control			
Standards and Guidelines.....	$3,467.6	$8,264.4	+$4,796.8
Technical Assistance.....	1,421.4	1,327.8	-93.6
Subtotal...	4,889.0	9,592.2	+4,703.2
Enforcement			
Noise Enforcement	21.3	521.7	+500.4
Research and Development			
Processes and Effects.....	351.0	...	-351.0
Control Technology	193.9	45.0	-148.9
Subtotal...	544.9	45.0	-499.9
Total...	5,455.2	10,158.9	+4,703.7
End-Of-Year Employment			
Abatement and Control			
Standards and Guidelines....	29	49	+20
Technical Assistance....	26	26	...
Subtotal...	55	75	+20
Enforcement			
Noise Enforcement	1	10	+9
Research and Development			
Processes and Effects.....	1	...	-1

	1975	1976	Increase or Decrease
Research and Development (cont.)			
Control Technology	2	1	-1
Subtotal...	3	1	-2
Total....	59	86	+27

Noise

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Standards and Guidelines...	$3,467,600	$8,264,400	+$4,796,800
Technical Assistance...	1,421,400	1,327,800	- 93,600
Total.....	4,889,000	9,592,200	+ 4,703,200
End-of-Year Employment			
Standards and Guidelines...	29	49	+20
Technical Assistance...	26	26	...
Total.....	55	75	+20

Purpose

The Noise Control Act of 1972 provides authority for the establishment of noise emission standards and labeling regulations for products distributed in commerce as well as noise standards for interstate motor and rail carriers. The Act further requires EPA to review aircraft and airport noise control practices and to propose appropriate noise abatement regulations for the Federal Aviation Administration to promulgate. Noise emission standards, which are intended to protect the public health and welfare, will reflect the degree of noise reduction achievable through application of the best available technology, taking into account the cost of compliance and appropriate safety considerations. The Act makes EPA responsible for coordination of all noise control and noise research programs being carried out by the Federal Government. It extends EPA's original authority (under the Clean Air Amendments of 1970) to provide technical assistance to Federal agencies to include technical assistance to State and local governments to facilitate development and implementation of their noise control programs. In support of all these activities, EPA disseminates information on the effects of noise, acceptable noise levels, and techniques for noise measurement and control.

Noise

Abatement and Control

Standards and Guidelines

	1975	1976	Change
Standards and guidelines.....	$3,467,600	$8,264,400	+$4,796,800

The Noise Control Act of 1972 requires the Environmental Protection Agency to promote an environment free from noise that jeopardizes public health and welfare. The major regulatory thrusts of this legislation are establishing noise emission standards for newly manufactured products which are major sources of noise and designating products for labeling as to noise levels; development and promulgation of standards for interstate railroad and motor carriers (enforced by the Department of Transportation); and developing and recommending to the Federal Aviation Administration standards for the control of aircraft and airport noise.

1975 Program and Accomplishments

All actions with mandatory deadlines under the legislation will be completed in 1975. These actions include:

- Publication of a criteria document (Section 5 of the Noise Control Act);

- Publication of a document defining requisite noise levels protective of health and welfare (Section 5 of the Act);

- Promulgation of initial regulations for in-use interstate motor carriers (Section 18) and railroads (Section 17)(enforced by DOT);

- Publication of the first and second lists in a series identifying major sources of noise (Section 5);

- Promulgation of the two new product (portable air compressor and medium and heavy duty trucks) regulations required by the initial listing of major noise sources; and

- Publication of a report to Congress on airport-aircraft noise problems.

Other major actions will include the proposal of eight aircraft regulations to the FAA and proposal of labeling regulations for hearing protectors. In addition, active interagency panels have been established for the coordination of Federal noise research and development. Environmental impact statements will also be reviewed.

1976 Plan

- Obtain cost, technology, and health effects assessment data for 19 potential product regulations. These include actions relative to 11 transportation, six construction and two general products;

- Publish five proposed product regulations;

- Promulgate three and publish several proposed labeling regulations;

- Obtain preliminary advanced planning cost, technology, and health effects data on future possible candidates for regulations; and

- Provide inputs to FAA aircraft and airport regulations.

Purpose of Increase

In 1975, regulations suggested by the aircraft and airport noise report completed in 1974 will be developed and proposed to FAA for promulgation. To ensure adoption and implementation of these regulations, man-years must continue to be devoted to maintaining a close working relationship with the FAA and to defending or revising the proposals. Also, the rate at which noise emission standards for surface transportation and other new products are developed and proposed must be significantly stepped up. The maior program increase in funding is in this area. While a significant beginning was made in this area in 1975, the funding recognizes the necessary increase in rate of regulation to meet the program goals and the fact that it requires between two and three years of time to carry a regulation and supporting documentation from inception to promulgation. The proposed budget increase will allow needed expansion of those activities.

Noise

Abatement and Control

Technical Assistance

	1975	1976	Change
Technical assistance.....	$1,421,400	$1,327,800	-$93,600

EPA provides technical information and assistance to State, local and other Federal agencies for the abatement and control of noise. This assistance consists of guidance and direct field support to State and local agencies in implementing noise control programs, developing model noise laws and ordinances, coordinating Federal noise control programs, and examining Federal facilities for compliance with State and local laws. Other assistance includes specialized workshops, seminars, and training sessions covering the selection of equipment, training of personnel, collection and analysis of data, and compliance and enforcement procedures. In 1975, greater effort will be applied to assisting State and local agencies in development and implementation of their noise control program. Such programs become increasingly important as EPA develops its noise source regulations, the effectiveness of which will often depend on application of local use standards. The attainment of EPA goals for the substantial reduction of community noise and hence the populations at risk from a health or welfare point of view is partially dependent on complementary State and local efforts envisioned by the law.

1975 Program and Accomplishments

Activities carried on through 1975 will include:

- Continuation of technical assistance to State and local governments in development of noise control programs;

- Provision of information and assistance concerning model noise laws and ordinances;

- Promotion of noise workshops and training sessions to assist State and local governments in the

development and implementation of noise control programs;

- Updating a report on State and local governments' nonoccupational noise programs for use in preparing a report to Congress on the status of noise control programs;

- Conducting community noise surveys to characterize public health and welfare effects of noise which will be useful in the development of noise product regulations and become part of an on-going national community environmental noise assessment program;

- Consultation with all Federal agencies which propose standards and regulations for noise control;

- Stimulation of Federal interagency and intergovernmental coordination to deal with noise control problems;

- Submission of the first report to the Congress on the status of noise control and research programs of all Federal agencies; and

- Stimulation of the development of low noise emission products by certifying certain products as eligible for preference in Federal Government purchasing practices.

1976 Plan

- Publish model local government noise ordiances;

- Publish noise guidelines for local building codes;

- Continue technical assistance to States and local governments in development of noise control programs;

- Collect information and data (noise surveys, etc.) to be used in development of product regulations;

- Complete second report on the status and progress of Federal noise research and control programs;

- Assist Federal installations to comply with State and local noise requirements; and

- Continue development of trend noise monitoring systems for future assessment of noise impacts.

Purpose of Decrease

In order to fully support the development of standards and regulations, some technical assistance resources will be redirected to the collection and interpretation of product source emission data and measuring techniques.

Noise

Enforcement

	1975	1976	Increase or Decrease
Budget Authority			
Noise Enforcement...	$21,300	$521,700	+$500,400
Total.....	21,300	521,700	+ 500,400
End-of-Year Employment			
Noise Enforcement...	1	10	+9
Total.....	1	10	+9

Purpose

The purpose of the noise enforcement program is to achieve compliance with Federal noise standards and labeling requirements for new products as authorized by the Noise Control Act of 1972 and developed as discussed in the abatement and control section.

The noise enforcement program will assure compliance with the noise emission standards promulgated under the Noise Control Act by the Office of Noise Abatement and Control.

After satisfying the increased costs for personnel, the primary emphasis will be upon the selection and development of a Noise Test Facility with which to implement the enforcement of the standards.

1975 Program and Accomplishments

In 1975, emphasis in the noise enforcement program will be on locating and developing a Noise Test Facility site and strategy, and developing policy and regulations for achieving compliance with Federal noise standards and labeling

requirements for new products. In 1975, the Agency plans to promulgate regulations for implementing the enforcement strategy for new product noise emission standards (medium and heavy duty trucks and portable air compressors), to develop the strategy for Federal enforcement of such standards in-use, and to participate in finalization of labeling requirements for new products. EPA will consult with the Department of Treasury on development and finalization or regulations for new products offered for importation which are subject to noise standards, and will develop procedures for coordinating with the Department of Transportation in the enforcement of new truck, new compressor, and motor carrier standards.

A Noise Test Facility site will be selected and development begun to provide the means for carrying out enforcement of new truck, new compressor, and motor carrier standards. We will also develop policies for assisting State/local enforcement authorities in regulating products in-use.

1976 Plan

New Product Noise Enforcement

The new product noise emission standards for medium and heavy duty trucks and portable air compressors are scheduled to be promulgated in the spring of 1975. These new truck noise emission standards are to be effective for 1977 model year vehicles which will be produced in the fall of 1976; the new compressor standards will be effective in the spring of 1976. EPA enforcement of these standards will begin as soon as manufacturers notify EPA that they wish to begin production verification. Manufacturers have indicated that they desire the flexibility to verify production models before the regulations are effective. This may be as soon as they are promulgated. This verification will require evaluation and monitoring by EPA.

The strategy for enforcement of new product noise emission standards for medium and heavy duty trucks and portable air compressors, consists of a two part enforcement strategy - (1) auditing of noise emission performance of new products, and (2) production verification.

Resources requested provide for the development of an EPA standard test capability. This capability is essential to support the enforcement activities for enforcement of

new products subject to noise emission standards by audit and for new product verification.

Auditing of noise emission performance of new products is a continuing audit conducted pursuant to a test request issued by EPA to determine whether manufacturers produce complying products. An EPA audit staff will be required to select the manufacturers and products to be tested, prepare the test orders, monitor compliance with the test orders, perform such confirmatory testing as may be required, take appropriate action in the case of nonconformity, and conduct investigations as necessary.

The second part of the enforcement strategy, production verification, calls for each manufacturer to verify that he possesses the required technology and ability to enable his new products to conform to the applicable noise standards. Productions verification is required at the beginning of the model year when a new model is introduced during the year or when a significant change occurs to a previously verified product. Although production verification is for the most part conducted by the individual manufacturers, EPA staff will be responsible for evaluating the production verification reports, monitoring in a selective basis production verification testing, and conducting inspections and investigations concerning manufacturers' activities as necessary.

In-Use Noise Enforcement

Under the Noise Control Act, both States and, in some respects, the Federal Government have the authority to regulate products in-use. Federal responsibility in this area extends to enforcement of Federal useful life standards through recall and warranty requirements, enforcement of the Federal prohibition against tampering, and assisting States in setting up enforcement programs for products in-use.

At the present time, no major State enforcement programs for noise sources have been developed. The Federal Government must help States to lay the groundwork for establishing such programs if there is to be adequate in-use enforcement of products subject to noise emission standards. A model State enforcement program, including model legislation, must be developed. This will require close contact with regional offices, 50 States, and many local jurisdictions.

The State programs will succeed only to the extent that they are based on a well conceived Federal program. A

Federal recall program must be established, since most States and local governments would not be able to establish a recall program on their own. In addition to a recall activity, the noise enforcement program will also require a warranty and tampering activity. Planning for the Federal in-use noise enforcement program will occur in 1976 with implementation slated for 1977.

Purpose of Increase

New Sources

The purpose of the increase in 1976 is to enforce new product noise emission standards for medium and heavy duty trucks and portable air compressors through: production verification, auditing of noise emission performance of new products, and the establishment of a standard test facility in support of these activities and to support development of the enforcement test facility.

In-Use Sources

The purpose of the increase in 1976 for in-use sources is to establish Federal recall, warranty, and tampering programs for new products in-use, and to provide direction to State and local in-use noise enforcement programs through the development of a model State enforcement program.

Noise

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and Effects..	$351,000	...	-$351,000
Control Technology.....	193,900	$45,000	-148,900
Total.....	544,900	45,000	-499,900
End-of-Year Employment			
Processes and Effects..	1	...	-1
Control Technology.....	2	1	-1
Total.....	3	1	-2

Purpose

The noise research and development effort concentrates on coordinating the research programs of all Federal agencies in accordance with the Noise Control Act of 1972 in order to expand and improve the scientific and technical base for noise control and abatement programs.

Noise

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects...	$351,000	...	-$351,000

In support of EPA's responsibilities related to the standard setting and enforcement role of the Agency, health effects research is directed to the development and improvement of criteria which Congress has stated will be the basis for setting any noise emission standards. There are numerous gaps in knowledge and extensive areas of technical and scientific disagreements which require a research effort.

1975 Program

This year, studies are being conducted on the effects of hearing impairment from various types of noise exposure of greater than eight hour duration, and on the effects of body vibrations combined with noise on potential hearing loss. Investigations are also under way to study behavioral correlates of varying noise environments, as well as studies to explore the role of various stimuli in the adaptation of nonauditory physiological system reactions to noise. Additionally, studies are planned on response effects to time-varying noise. A symposium is scheduled to discuss the critical issues on the effects of environmental noise on hearing.

1975 Accomplishments

The health effects program was begun in 1974. There have been no significant accomplishments to date.

Purpose of Decrease

To effectively meet the research needs to support and/or revise existing environmental noise criteria and subsequent standards, a program with resources of approximately $2 million is required. Because these resources are not available and a significant research effort cannot be maintained at the present low level of funding, current noise resources could more effectively be used in another program area. It is, therefore, necessary for EPA to rely on other Federal agencies to provide noise health effects research.

Noise

Research and Development

Control Technology

	1975	1976	Change
Control technology..	$193,900	$45,000	-$148,900

From the legislative history of the Noise Control Act, and the limited funds assigned for implementing the Act, it is clear that Congress intends that EPA utilize the research and technology generated by other Federal agencies to help fulfill the provisions of the Act. Therefore, Federal noise research coordination is viewed as a major resource whereby EPA will achieve its research, development and demonstration requirements to support the regulatory and enforcement activities of the Agency.

The coordination task is extensive. Federal agencies or departments having noise research activities are Department of Transportation, NASA, Department of Defense (Army and Navy), Department of Interior, Department of Agriculture, Post Office, and the Veterans Administration. Aircraft noise control research accounts for 87 percent or more of the total Federal allocation from 1973 through 1976. Other major Federal efforts are under way in research on noise health effects, surface transportation noise control, stationary machinery noise control, and noise measurements methodology.

1975 Program

EPA has developed a program to coordinate federally sponsored noise research, development, and demonstration activities that utilizes four noise research panels: (1) aircraft, (2) surface transportation, (3) stationary machinery, and (4) noise health effects. This approach assures EPA continuing access to agencies' noise research and development programs and scientific expertise. The current program will complete an inventory of Federal noise research and development programs and the ability of these activities to satisfy environmental health and welfare goals.

1975 Accomplishments

- A plan to coordinate Federal noise research activities has been developed and intiated, and
- A preliminary inventory of Federal noise research and development has been completed.

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1976 Plan

Starting in 1976, the noise program will perform only coordination of the Federal noise research program in accordance with provision of the Noise Control Act.

Purpose of Decrease

The proposed decrease reflects the consolidation of noise research and development efforts into a single coordination program, allowing an increased effort by the EPA regulatory program.

REPROGRAMING OF NOISE POSITIONS

Mr. BOLAND. On page N–1 the request for 1976 is shown. You are asking for an increase in the next fiscal year of $4,703,700. That is up from $5,455,200 in 1975 to $10,158,900 in 1976.

You also show an increase of 27 people in this area. These are not new people; are they?

Mr. TRAIN. No, sir, they are being achieved by reprograming.

Mr. BOLAND. Where are the 27 coming from?

Mr. ALM. It is a question of the entire personnel complement. We have had some reductions and some increases.

We have not identified particular people in this area. Probably through attrition they will be new people, but they will be reprogramed in terms of total positions.

TRAINING OF REPROGRAMED PERSONNEL

Mr. BOLAND. In moving people from one program to another within the Agency, and you are doing that in a number of instances throughout these justifications, we note, does this require some retraining and rethinking on the part of the people who are reprogramed from one activity into another? Does it give you a problem?

Mr. ALM. The most massive change is the shift of the water permit people to the construction grants program.

Would you address the training need in that program, Jim?

Mr. AGEE. Yes; there are some training needs.

A good many of the people who worked in the water permit office were sanitary engineers, biologists, and chemists; so they have a technical background to work in that construction grant program. However, not all of the people would be up to speed, if you will. We do have some training efforts and learning programs for these people so they can assume the construction grant responsibilities.

NOISE LEVELS

Mr. BOLAND. On pages N–2 and 3 you set out in the justifications various noise maximums for a specific target, such as reducing urban noise levels below 70 decibels, so that less than 1 million of the 13 million population residing in those areas remains exposed to such high noise levels by 1992. How did you arrive at the 70-decibel figure or the 55-decibel figure? Does your research support those figures as safe levels?

Mr. STRELOW. The first activity the Agency was mandated to undertake under the Noise Control Act was the publication of two companion documents, a so-called criteria document which lays out all the scientific information on the effects of noise, both health and welfare effects. Second, what we have come to call the levels document which takes all of this raw information and draws some conclusions as to the levels where you will experience various threshholds for health effects and for annoyance or welfare effects. This document was reviewed extensively within the overall Federal establishment by HEW and others and indeed received quite a bit of outside review.

It is that document which forms the basis for conclusions as to, for example, the 70-decibel level or the 55-decibel level.

AIRCRAFT AND AIRPORT NOISE

Mr. BOLAND. We will turn to "Abatement and control" on page N–10.

The bulk of the increase for noise is being allocated to standards and guidelines in 1976. You discuss in the justifications the work you do in developing standards for the control of aircraft and airport noise. Yesterday, Mrs. Burke and Mr. Train, in the general questions, indicated what the guidelines were and what EPA is doing. We discussed the SST, what the ruling was on it, and the particular guidelines established by the EPA with reference to it. We understand that the EPA guidelines and criteria apply only to those that are already flying.

Mr. TRAIN. Well, either in being or under contract.

Mr. BOLAND. How many of them are there all told?

Mr. TRAIN. In both those categories I think that of the Concorde, there may be 6 in existence and some 8 under firm construction contracts for a total of 14 and perhaps about the same of the Soviet Tupelo or whatever it is called.

Mr. STRELOW. We do not have accurate information there but that is our best estimate. Our regulatory proposal to the FAA dealt with the existing or in-process aircraft differently than future production. The future production would have to meet subsonic noise levels standards for new classes of aircraft in effect at that time, that is, meet the same noise levels required of subsonic aircraft.

Mr. BOLAND. I would like to get into a short discussion on the jurisdictional lines on noise control among the various Federal agencies—NASA, FAA, and EPA. It is difficult to draw the lines there. When NASA was before this subcommittee we questioned them with reference to their particular responsibility in the noise of aircraft and also airport noise. Where do you draw the line? There seems to be some duplication in this area among these three agencies, FAA, EPA, and NASA.

Mr. TRAIN. I am not aware that NASA has any direct regulatory authority in this area.

Mr. STRELOW. Mr. Chairman, my understanding is that NASA does indeed do a considerable amount of research on aircraft noise which then would obviously be used by us and useful to us in our recommendations to the FAA, as to the exercise of FAA's regulatory responsibilities.

Mr. BOLAND. How much do you do in R. & D. on aircraft and airport noise?

Dr. TALLEY. Our R. & D. role, sir, is one of coordination and keeping track of what other Federal agencies are doing as is mandated in the statute.

Mr. TRAIN. So we do not do direct R. & D. on aircraft noise.

JURISDICTION OVER AIRCRAFT

Mr. BOLAND. Let's look at another area where there appears to be some jurisdictional problem. As you probably know this committee has approved in the past 5 years approximately $45 or $50 million for the development of a retrofit package for the JD–8 engine which is

the engine used on DC–9's, 727's, and 737's. As I understand it, the technology has been developed and is in the final stage. I understand the problem is that to retrofit the fleet would cost somewhere around $5 billion.

A cheaper way of achieving some noise reduction would be to put some absorption material within the engine compartments. Who ultimately determines which way the airlines have to go? Is it the FAA or is it you, by setting the particular noise level standards.

Mr. TRAIN. It is the FAA.

Mr. STRELOW. We make recommendations to them, but it is clearly their decision.

Mr. TALCOTT. That is new to me. I thought FAA had jurisdiction over things that were purely safety and you had jurisdiction over things connected with noise pollution.

Mr. TRAIN. Perhaps we could rephrase that for the record.

Mr. TALCOTT. But isn't there a difference in your jurisdiction? You do not know what is safe about an airplane. You could say in order to keep the noise out you have to put a noise suppressant on it and the thing would not fly. So the FAA has to be concerned about the safety.

Mr. TRAIN. That is correct.

In the development of the Noise Control Act, Congress retained in FAA the final authority over setting a noise standard for aircraft. It was proposed, and I think maybe one House actually passed a bill giving that authority to EPA.

The issue was whether to give it all to EPA or all to FAA. Congress struck a compromise which involved both agencies, with EPA proposing, based upon primarily its environmental responsibilities, a standard or set of standards which FAA must then publish and hold hearings on and take into account in its development of a final standard.

It can, in fact, not follow our recommendations and may modify them because of safety or economic considerations.

So it is a dual process with a final authority being in FAA with regard to aircraft.

Mr. STRELOW. By comparison, in the air pollutant emissions areas, EPA does have its own regulatory responsibility for aircraft emissions. The two are treated differently.

NOISE STANDARDS

Mr. BOLAND. On the question of airport noise, the committee has received one or two inquiries from members concerning regulations which you, I think, have promulgated on the levels of airport noise allowed for certain surrounding areas.

I know we had one inquiry from California where all housing projects which had been committeed under HUD programs were held up because of these new standards issued by EPA. Have you had problems such as I am describing?

Mr. STRELOW. Mr. Chairman, I know there are some standards promulgated by the Department of Housing and Urban Development where they indicate a noise level should not exceed a certain amount

before they will fund a housing project or underwrite mortgages. It sounds like that kind of situation.

Mr. TRAIN. We have developed criteria, not binding regulations of any sort, but criteria designed to represent our best view based upon the research data we have of the levels of noise at which an adverse human health or welfare impact is experienced. We have published all of this very extensive data which may then be taken into account by local planning agencies, by other Federal agencies in implementation of their own programs. But we do not have a regulatory authority in that sense.

Mr. BOLAND. Does HUD take your criteria? Do you suggest the criteria and the noise level or does HUD establish its own criteria?

Mr. STRELOW. HUD has the authority to make its own final determination as to what its final criteria will be, but it certainly takes into account our guidance. I am not aware of any problems in that area.

The Noise Act is structured in a way that this Levels Document, as we call it, is to be taken into account and followed at least in general terms by other Federal agencies in the exercise of their responsibilities.

Mr. BOLAND. This problem has really been a serious one in many areas on HUD projects. It has increased the costs of projects considerably. Some of the nonprofit and religious organizations that have been engaged in programs for the housing of the low and middle income groups complain that the criteria established by HUD on noise levels has really increased the cost of those projects.

I presume it has. They have had to put double windows in a number of them and build berm to keep the noise from the street out.

I cannot understand why they would establish criteria for these particular projects when it is just the regular traffic noise running by. I don't know how serious that is to the public health.

Mr. STRELOW. Mr. Chairman, I think it is important to understand that we are talking about health problems, both physiological and serious psychological problems as well. These criteria are intended to reflect that. Oftentimes, the types of projects that you are talking about may be proposed for location right near a major freeway, in areas where higher income groups certainly would not choose voluntarily to locate housing. I think that is really what is involved here.

EFFECTS OF NOISE

Mr. BOLAND. Did you ever have a study of people who live next to the Elevated in New York to determine in the longrun if it was deleterious to their health?

Mr. STRELOW. There have been studies of various population groups that are exposed to higher levels of noise than the average population and there is evidence of effects on people who are exposed to this kind of noise.

Mr. TALCOTT. One thing is they talk louder when they get in a crowd and their children do not learn to speak as early because they do not hear their mothers' voices as early and as as readily.

The EPA is telling people how noise can be adverse to your health but if you like to listen to loud music like some kids do, you cannot deny them that right.

HUD has some responsibility in that although land is cheap in the air corridor and near the highway, they ought not to build there because it could have an adverse effect on the health of the residents. But people should have the right to build there if they want and ignore the good advice that EPA and HUD gives them.

Mr. TRAIN. There is no question about the fact that the health problem from noise is not a new area in medical knowledge. While we do not know as much about the effects as we doubtless will in time. There is a large body of scientific evidence available now of adverse health effects from noise leading to hypertension and other stress effects, heart conditions, and of course loss of hearing is what we would all be familiar with.

OCCUPATIONAL NOISE

There are other more pervasive and probably even more significant kinds of adverse health effects from noise. We are familiar with most of this in the occupational sense. Really, an enormous number of man-years are lost in the workplace annually because of noise effects. While these programs do involve potential costs for abatement of noise there are very substantial savings to our society in medical bills and time on the job from reducing levels of noise, particularly in urban areas.

Mr. STRELOW. I believe the largest amount of comprehensible health damage from the occupational context is loss of hearing. There are more claims filed there than for any other occupational impairments.

Mr. TALCOTT. Can disease or other things be the cause of that?

Mr. STRELOW. I think statistics are pretty clear that the noise impacts are by far the predominant. People exposed in noisy occupations have drastically higher hearing impairments than others.

Mr. BOLAND. If the Occupational Safety and Health Administration adopted EPA's recommendations as to occupational noise exposure limits, what would be the effect on food processing plants which have recently installed equipment to meet Food and Drug Administration's sanitation and performance standards? Specifically, as an example, if ventilating fans in refrigerated rooms produced noise exceeding EPA's proposed 85 dBA 8-hour limit, or OSHA's suggested 90 dBA level, would they have to be replaced or modified?

Mr. STRELOW. If the equipment in question was procured following enactment into law of the Occupational Safety and Health Act in 1970, it should have been designed and installed to meet a 90 dBA 8-hour exposure limit requirement. That limit, prior to the time of enactment, applied to plants during contract work for the Federal Government in excess of $10,000. It should be noted that if a food processing plant was engaged in filling Federal procurement contracts, that level was required under the old Walsh/Healy public contractor. With the passage of the Occupational Safety and Health Act, these limits became applicable on a general basis. Thus, no extra requirement would result for expenditure of funds if the Occupational Safety and Health Adminis-

tration proposal to continue the present limits were to be adopted. Even though equipment was recently purchased by a plant to meet FDA requirements, and did not conform to that standard, they would be in fact in violation under present OSHA rules.

The EPA proposal for a lower occupational noise limit of an 8-hour 85 dBA equivalent is based on well-founded scientific data that shows a considerably larger number of employees will suffer permanent hearing impairment at 90 dBA and higher than at the lower limit. A recent study done by NIOSH indicates that a number of individuals with actual hearing impairment is running higher than previously estimated. If the 80 dBA 8-hour equivalent were adopted, several alternatives are available, as EPA has suggested to OSHA. These include applying the limit only to new plants, with a gradual phase in of requirements for older plants, meanwhile requiring the use of personal protective equipment such as hearing defenders. EPA has also suggested to OSHA that if the 85 dBA limit were to be established say in 3 to 5 years, because of recognized problems within various industries, authority could be given for the use of hearing protectors on a plant-by-plant basis and where appropriate, for differing locations within specific plants. In such cases, it would be our view that a specific compliance schedule might be indicated. Thus, a plant such as cited in the example, depending on OSHA's determinations, have to institute use of hearing protectors; or meet an agreed upon long term compliance schedule, based on technology and economic consideration.

NOISE ENFORCEMENT

Mr. BOLAND. Let's turn to page N–15 and enforcement. You show an increase of $500,400 in fiscal 1976. You are just about bringing your enforcement program on line. I notice on page N–16 that you talk about enforcement standards on 1977 model year trucks.

How much will these new noise standards cost the industry?

Would you provide an estimate?

Mr. TRAIN. Yes.

[The information follows:]

COST OF NOISE STANDARDS AS APPLIED TO TRUCKS

The increased capital cost for an individual new truck in the first year under the proposed new medium and heavy duty truck noise regulation could vary from no cost (some production models will require no modifications) to about $150. Based on an estimated production of about 400,000 medium- and heavy-duty trucks, a high side estimate of the total increased capital cost that first year would be $34 million.

We have been advised separately by DOT and the FEA that one quieting technique which would be used under the regulation (thermostatically controlled cooling fans) would result in a substantial fuel savings. We have not taken credit for the savings in operating cost in the total indicated. The savings could easily equal the increased capital cost in about 5 years of truck operation.

Initial compliance may be required about halfway through the 1977 model year. The first full model year under the regulation would be 1978.

NOISE RESEARCH AND DEVELOPMENT

Mr. BOLAND. We will turn to "Research and development." On page N–19 you are showing a decrease of about half a million. It is interesting to note that according to the justification you had only three

people involved with a $545,000 program this year. That is a healthy sum of money. Is a lot of this contract?

Dr. TALLEY. It is entirely contract.

Mr. BOLAND. On page N–20, under the purpose of decrease, you have stated that at least $2 million is required to support a research program for noise. Because these resources are not available you felt that the present level of $545,000 was not cost-effective. Therefore, you are relying on other Federal agencies to provide noise and health effects research.

I am not sure that that is a desirable move, but I do know that it may be instructive of the kinds of things we will have to do on a larger scale as we look toward budget priorities under the new Congressional Budget and Impoundment Control Act.

One of the things that struck me throughout this entire justification is that EPA must be more or less inundated with new congressional mandates in the pollution field. The latest of these, and we had great testimony on this, was the Safe Drinking Water Act. With a limited number of dollars, obviously, this is forcing you to move people and positions around to cover the squeaky wheels and to attempt to implement this broad range of congressionally mandated legislation.

What you are doing here is, I suppose, robbing Peter to pay Paul.

ENVIRONMENTAL LEGISLATION

I wonder if what we should not be doing, and I think I suggested this under the Safe Drinking Water Act, is to concentrate some of our resources on one or two or more of the major programs, such as water and air, and see if we can't get those programs at least on track before we take on four or five or six other major areas.

How do you feel about that analysis?

Mr. TRAIN. Of course in a sense that is a judgment that the Congress has to make.

Mr. BOLAND. That is true.

Mr. TRAIN. We would not be in the drinking water field, at least anywhere near as substantially as we are, had it not been for the passage of the Safe Drinking Water Act. You can say the same for the Noise Control Act and other fairly recent authorities.

Mr. BOLAND. The trouble is that the Congress passes all these laws and you have responsibility for supervising them. They are sometimes passed rather rapidly. You get into a situation where you have a survey in New Orleans that indicates there may be carcinogens in the water supply and there is chloroform in it. A month later, I think that survey was late last year, the Safe Drinking Water Act was passed.

I think one of the reasons for the rapidity with which it was passed was the results of the survey taken in New Orleans, although over the years the proposal for safe drinking water had been kicking around.

However, once the laws are passed and we put an agency like EPA into the field with the responsibilities for monitoring, supervising, and enforcing, I have the feeling that sometimes they build up a constituency within the agency and want to perpetuate the programs rather than getting a good look at them and determine if they are necessary or if we should change our direction.

Mr. TRAIN. Those are all very good questions, Mr. Chairman.

Mr. BOLAND. Let me say this: I don't think any other subcommittee understands better than this subcommittee that when we place responsibility upon a particular regulatory agency and we constantly increase their burdens and their responsibilities that we have to give them the staff and the money to do the job, otherwise there is no sense in passing the laws.

We have done that in many instances. We used to have the SEC and the Federal Communications Commission as part of our responsibilities. We constantly funded them beyond what the budget request was because of the duties imposed upon them by new laws. It is the same with the VA. We constantly increased the benefits for the veterans. You have to give the VA the wherewithal and personnel to handle the tremendous workload imposed on them and we do that. At the same time, I think, there is a responsibility on the part of the agency itself to determine if these laws are good or bad and should we change them.

Mr. TRAIN. I will be glad to address those questions, Mr. Chairman. First I do recognize that since this Agency came into existence we have had a variety of new authorities enacted by the Congress and given to the Agency. Now I hasten to say that the Agency has, I believe in all cases, sought those authorities and worked with the Congress in their development. I think back to the Ocean Dumping Permit Authority in the Marine Sanctuaries Act, the noise control legislation and the Safe Drinking Water Act and I would add hopefully in this Congress the Toxic Substances Control Act.

I think in each case these have stretched the resources of the Agency because almost inevitably congressional and public expectations tend to far outrun the capability of the Agency with a new program to meet. Having said that, however, I think it is very, very important and I think the Congress has made these judgments that these problems which we are identifying come under effective surveillance and the beginnings of effective procedures for abating the problem. I think that one of the reasons why our air and water problems are so very substantial in this country and are costing us billions and a great deal of stress and strain to control them is the fact that we let them get so far out of hand. So, I think it is important that as we identify a problem such as noise or drinking water, that we move deliberately into them, recognizing that the problems tend to be far too complex to be susceptible of solution overnight.

So expectations should not be too great. But it is important that we get started and working on them.

Now having said that, I also believe it is vitally important that the Agency continually assess its own priorities and where it feels that changes in these are needed, to address those effectively, both in terms of our work with the Congress and with OMB. I think that within EPA the record of reprograming of personnel is really outstanding. I think that more than any agency I am familiar with, we have constantly kept our own programs and activities under review and constantly shifted our resources as priorities have tended to change. I think that the fact that we have essentially over the last 3 years undertaken a great many new responsibilities given us by the

Congress with essentially no change in the staffing available to the Agency speaks to that fact. I think the fact that our proposed budget for 1976 shows a substantial increase in staffing for the construction grant program without any increase in the overall ceiling except for the drinking water program is further evidence of that fact.

We make a continuing effort to shift our resources as best we can as priorities change.

But all of this means that there is very heavy pressure on the agency to carry out mandates such as under the Noise Control Act and under other authorities. We are constantly being criticized, as you know, constantly in the courts, as you know, because we are not meeting deadlines imposed by the Congress for the issuance of various regulations. This in part is a resource problem.

Mr. BOLAND. I think from what we have found out in the few days we have been sitting here with the EPA, the number of people you have and the areas in which you use them, you are probably more efficient in the use of your personnel than a lot of the agencies with which we are associated.

We will recess until 1:30 o'clock this afternoon.

AFTERNOON SESSION

Mr. BOLAND. The committee will come to order.

INTERDISCIPLINARY RESEARCH AND DEVELOPMENT

We will turn to Interdisciplinary research and development. Place pages I–1 through I–9 in the record.

[The pages follow:]

Interdisciplinary

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Research and Development			
Processes and Effects....	$17,452.9	$19,460.8	+$2,007.9
Control Technology.	1,314.6	1,315.0	+.4
Total..	18,767.5	20,775.8	+2,008.3
End-of-Year Employment			
Research and Development			
Processes and Effects...	240	240	...
Control Technology	12	12	...
Total..	252	252	...

Interdisciplinary

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and Effects.....	$17,452,900	$19,460,800	+$2,007,900
Control Technology	1,314,600	1,315,000	+400
Total.....	18,767,500	20,775,800	+2,008,300
End-of-Year Employment			
Processes and Effects.....	240	240	...
Control Technology	12	12	...
Total.....	252	252	...

Overview and Strategy

It is clear that EPA is responsible for making and implementing decisions concerning the use of common property environmental resources, i.e., the air, water, wilderness, etc., and must consider the interrelationship of these resources and our social and economic wellbeing. Thus, EPA functions in many ways as an environmental manager. This function requires the use of a wide range of assessment vehicles -- theoretical, operational, and managerial. The interdisciplinary research program is designed to supply these vehicles through conduct of socio-economic research, the development of quality assurance procedures for use in regional and State programs, the development of standard setting methodologies, and the production of assessment documents on pollutants for which standards may be established.

Interdisciplinary

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects.....	$17,452,900	$19,460,800	+$2,007,900

The components of this program are socio-economic research, minority institutions research support, monitoring, the National Center for Toxicological Research, program integration, and the Science Advisory Board.

A program of research grants to minority institutions in the area of environmental research is conducted by EPA. Minority institutions which have or can develop capability to conduct effective environmental research are actively sought, assisted in preparation of grant applications, and encouraged to submit them.

The Office of Monitoring Systems has the responsibility for development and demonstration of new monitoring methods and instrumentation. Improved technical data and information systems are required to satisfy Agency monitoring data needs in the most effective manner. There is also a quality assurance program to maintain uniform, scientifically correct analytical methods and assure and document the satisfactory use of those methods throughout EPA's numerous laboratories. In addition, it provides technical assistance in the remote conventional and contingency monitoring areas.

The National Center for Toxicological Research is being funded jointly by the Food and Drug Administration and EPA as a national facility to study the long-term effects of low doses of chemical toxicants. Past research efforts associated with these toxicants has been concentrated on high doses and their effects on man. Concern has arisen in the scientific community regarding the possibility that much more severe damage to man and the environment may be occurring through low dose exposure to toxicants over a long period of time. Research must be undertaken to evaluate such cumulative, low dosage effects.

The Office of Program Integration was established to assure that research and engineering strategies and programs

provide maximum responsiveness to Agency goals. This activity also includes the coordination and preparation of reports on criteria, guidelines, and standards and the preparation of other special reports.

The Science Advisory Board was established to provide a strong, direct link between EPA's Administrator and the scientific community. The Science Advisory Board functions to provide independent reviews, to render advice on EPA's major scientific programs, and to perform special tasks and program review assignments for EPA. This Board also provides advice on broad scientific and policy matters, on new emerging environmental problems, and assesses the results of specific research efforts to solve these problems.

1975 Program and Accomplishments

Minority Institutions Research Support (MIRS)

MIRS provides assistance to minority institutions in utilizing their environmental research capabilities. Program efforts are directed to identifying their potential and awarding grants to develop their research capabilities. The 1975 program supports 10 to 12 new projects.

Socio-economic Research

This effort is directed to development techniques for setting environmental quality standards, preparation of technical materials for standardizing EPA review of environmental impact statements, and development of precise mechanisms to quantify effects of investments on highway and wastewater treatment facilities. Additionally, work advanced toward completion of Phase III of the strategic environmental assessment system (SEAS) which will be used for long-range comprehensive analysis. The research program also assumed responsibility for preparation of the congressionally mandated 1975 "Cost of a Clean Environment Report."

Monitoring

There are many active projects in the quality control area. These include completion of first phases of on-site evaluation of EPA regional laboratories and selected State laboratories; the first step in expansion of quality control procedures to cover State monitoring laboratories; completion of phase one of a series of performance evaluations (analyses

of standard samples) of EPA and State facilities with respect to their routine analyses of air, water, pesticides, and radioactivity samples; development of quality control manuals for pesticide residues and radiochemical analyses; completion of the feasibility study of EPA certification of environmental monitoring laboratories; completion of projects to fully automate (using mini-computers) three EPA laboratories; and completion of a time-shared laboratory data management system at two regional laboratories.

In the area of methodology, active projects include validation of ambient air and stationary source measurement methods specified in Federal Regulations, evaluation of five measurement methods for analyses of water and wastewater, determination of equivalent methods for ambient air analyses as required by regulation, field testing and evaluation of commercially available ambient air instrumentation, and the design of an airborne laser pollutant measurement system.

Efforts in technical support include the analysis of 2,000 samples associated with the national fuel and fuel additive network, monitoring of sulfate background levels, continuing support of the World Meteorological Organization particulate studies, rural ozone studies and monitoring of CO in connection with transportation control strategies, and the provision on a regular basis of a photo interpretation capability in support of regional and other monitoring activities.

Contingency monitoring assistance indicated vinyl chloride to be an environmental problem, and demonstrated that acid mist from the Vulcanus burning of chloride-containing wastes was not a significant environmental problem.

Reports will be prepared on the subjects of nonpoint source pollution, groundwater monitoring, and biological indicators. An Agency plan will be developed in cooperation with the Department of the Air Force for the use of a sophisticated data and information storage and retrieval system in support of monitoring activities.

National Center for Toxicological Research (NCTR)

The program at NCTR is a long range effort involving animal testing over extended periods and maintenance of a pathogen-free environment with associated chemical and microbiological facilities. Included in the on-going programs are low-dose two year chronic studies in "barrier systems,"

additional chronic studies in conventional animal rooms and mutagenic research involving assay techniques and methodology development. During this year, it is also planned to complete the 2, 4, 5-T multidisciplinary study, expand teratological dose-response experiments and complete protocol development efforts.

In the maintenance program, important efforts are establishment of pathology capability to accommodate 750 mice per week preparation of pathogen-free animal feed which is chemically defined and uniformly mixed with very low levels of test chemicals.

Program Integration

In program integration, the primary objective is completion of development of integrated media strategies for the Office of Research and Development.

1976 Plan

Minority Institutions Research Support

The grant program will be continued at the 1975 level.

Socio-economic Research

The 1976 effort is concentrating research in five areas: (1) Continued development of comprehensive analysis techniques (the SEAS program) but with greatly increased stress on application; (2) Work on the benefits of EPA programs with the air and water results being incorporated into comprehensive new versions of "Cost of Clean Air and Cost of Clean Water"; (3) Continued land-use work leading to practical guidelines and manuals for implementation of integrated Air Quality Maintenance and Section 208 Regulations; (4) An assessment of the practicality of finding and implementing economically more efficient means of meeting environmental ambient standards; and (5) Work to define the problems of secondary impacts and to discover technical and managerial measures to avoid them.

Monitoring

There will be a continued effort on interlaboratory performance tests, validation of new methods for determining air pollutants, including sulfates in automobile exhausts; on-site performance evaluation of EPA regional and State monitoring laboratories; data screening quality control for

53-270 O - 75 - 29

an EPA data system; and demonstration of advanced airborne systems.

Instrumentation work includes the development of a detector for airborne mercury and methodology for the measurement of sulphur in low sulphur fuels. Mercury is one of three air pollutants designated as hazardous and to be closely controlled. Sulfur measurement procedures are required in the identification of fuels that can be burned with minimum pollution control requirements.

In the general monitoring area, monitoring network optimization guides and overhead monitoring techniques will be developed.

National Center for Toxicological Research (NCTR)

The plan for 1976 is a continuation of the 1975 program. Because the fundamental basis for toxicological research is long-term, the program is extended beyond a single year. The program details have been included above in the discussion of the 1975 program. A new objective has been added involving inhalation studies of toxic substances of interest to EPA.

Program Integration

The effort for 1976 will be directed to establishing procedures and coordinating the development of scientific technical assessment reports, updating the media strategies of the Office of Research and Development and continuing coordination of the integrated research and development program with other EPA programs.

Purpose of Increase

National Center for Toxicological Research (NCTR)

The potentially adverse effects of long-term, low level exposure to air pollutants are not currently being studied. The work at NCTR will be expanded to study these effects and fill a crucial information need of the Agency by establishing an inhalation toxicology capability. Current inhalation toxicology capability is limited to exposing relatively small numbers of animals with the result that only gross effects (frequently occurring) are detectable. The operation of this inhalation capability requires a budget increase of $2.0 million.

Interdisciplinary

Research and Development

Control Technology

	1975	1976	Change
Control technology..	$1,314,600	$1,315,000	+$400

This activity supports EPA's technology transfer program. In the coming decade, billions of dollars will be invested in the construction of pollution control, water quality, waste management, and resource recovery facilities. The objective of the technology transfer program is to ensure that the latest viable technologies are transferred to potential users. The technology transfer program is designed to bridge the gap between research and full-scale use by evaluating and transferring newly developed successful technology to industries, consulting engineers, municipal and State design engineers, administrative decision makers, and others exerting influence over the design and construction of pollution control, water quality, waste management, and resource recovery facilities.

1975 Plan and Accomplishments

The technology transfer program will have conducted 25 seminars on various aspects of pollution control technology, developed design manuals for a variety of technologies, and distributed over 250,000 publications of various degrees of technical complexity.

1976 Plan

The 1976 program will concentrate on disseminating information via seminars and manuals. The number of seminars already developed in the municipal and industrial sectors will be increased and new ones conducted in the area of stationary source air pollution control technology, industrial control processes, air monitoring, nonpoint source pollution, ground water quality, land disposal of effluents and sludges, and solid waste management and resource recovery.

Municipal wastewater treatment design manuals, industrial pollution control process design manuals, and industrial technology status manuals will be prepared covering such subjects as land disposal of effluents and sludges, individual

home waste treatment and disposal, combined flow treatment, solid waste management, resource recovery, ion exchange, carbon absorption, reverse osmosis, NO_x and SO_x control, fine particulate control, nitrogen control, pollution control in the pulp and paper industry, power industry, and air monitoring. Publications will also be prepared on other areas of pollution control and water supply.

NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH

Mr. BOLAND. For the interdisciplinary program you are requesting $20,775,800 and 252 positions. This is the same employment as at the present time but it is an increase of $2 million over the current funding level; is that correct?

Mr. ALM. That is correct.

Mr. BOLAND. What is the reason for increasing the funding for the National Center for Toxicological Research from $4 million to $6 million? This accounts for almost all of the increase.

Dr. TALLEY. This is for development of a large study on the effects of low levels of exposure to air pollutants.

Mr. BOLAND. Where is this center located?

Dr. TALLEY. Jefferson, Ark., the old Pine Bluff Arsenal. It is a joint program between the Food and Drug Administration and the EPA. Roughly the support has been equal, save that HEW is picking up large construction costs and is managing the facilities. We both have inputs into the program.

BREAKDOWN OF INTERDISCIPLINARY PROGRAM

Mr. BOLAND. Place a table in the record giving more detail on what these funds will cover.

[The information follows:]

	FY 1975 Manyears	FY 1975 $1000	FY 1976 Manyears	FY 1976 $1000	FY 1976 Increases/Decreases Manyears	FY 1976 Increases/Decreases $1000
NOISE - TOTAL	3.0	544.9	1.0	45.0	-2.0	-499.9
INTERDISCIPLINARY I-1						
Processes and Effects I-2						
Nat'l Center for Tox. Research		4,000		6,000		+2,000.0
Monitoring	165.2	8,203.4	165.2	8,208.8		+5.4
Economics Research	4.8	684.9	4.8	685.0		+ .1
Ecological Effects	21.0	1,788.2	21.0	1,789.0		+.8
Program Integration	27.0	969.1	27.0	970.0		+.9
All other	22.0	1,807.3	22.0	1,808.0		+.7
Processes and Effects Sub Total	240.0	17,452.9	240.0	19,460.8		2,007.9
Control Technology I-8						
Technology Transfer	12.0	1,314.6	12.0	1,315.0		.4
INTERDISCIPLINARY - TOTAL	252.0	18,767.5	252.0	20,775.8		+2,008.3

OFFICE OF MONITORING SYSTEMS

Mr. BOLAND. Will you explain the work of the Office of Monitoring Systems? What kind of employees are these 165 employees? The request for the activity is $8.2 million.

Dr. TALLEY. These employees range from engineering chemists to photo interpreters. Not only do we have development of instrumentation for water pollution, air pollution, particulate pollutants, but also have a remote sensing program cooperative with NASA to scan large areas of the countryside using multispectroanalysis so that we can obtain much cheaper or, in some cases, unique monitoring capability.

CONTRACT FUNDS UNDER OFFICE OF MONITORING SYSTEMS

Mr. BOLAND. How much of the $8.2 million is for contractual services?

Dr. TALLEY. Based on past experience, I would estimate that approximately $1.5 to $2 million would fall into the area of contractual services.

COSTS OF THE OFFICE OF MONITORING SYSTEMS

Mr. BOLAND. The total cost of the office averages out at $50,000 per job, which is pretty high. Can you explain that? Why is it that high?

Dr. TALLEY. Two reasons. One, as in all our research programs we have been forced to go to an extramural rather than in-house capability. The other is that certain of the functions we perform are high cost. When you manage to survey a million square miles and determine a great deal of information, it costs you a dollar per square mile to do it. The total price of the project is $1 million. The thing to compare would be to try to attain that same information in any other way. Then the cost would be much, much larger.

SCIENCE ADVISORY BOARD

Mr. BOLAND. On page I–4 you talk about the Science Advisory Board. What is the activity of this Board? How many members are there and how frequently do they meet? What does it do?

Place the names of the people on this Advisory Board in the record.

[The information follows:]

SCIENCE ADVISORY BOARD

The Science Advisory Board (SAB) of EPA is an umbrella organization, designed to provide a comprehensive vehicle for communication between the Agency and the scientific community on matters of concern to EPA. As such the SAB consists of several specialized scientific advisory committees whose activities are coordinated by an executive committee. The executive committee consists of the chairmen of the several specialized committees and members at large appointed by the Administrator to make a possible total of 20. Current total membership in the whole SAB (attached) is 78.

SCIENCE ADVISORY BOARD'S EXECUTIVE COMMITTEE

Air Pollution Chemistry and Physics Advisory Committee
Ecology Advisory Committee
Environmental Radiation Exposure Advisory Committee
Hazardous Materials Advisory Committee
National Air Pollution Control Techniques Advisory Committee
National Air Quality Criteria Advisory Committee

SCIENCE ADVISORY BOARD MEMBERS

Dr. Lucile F. Adamson, Professor, School of Human Ecology, Howard University
Dr. Mary O. Amdur, associate professor of toxicology, Harvard University
Dr. David M. Anderson, manager of environmental quality control, Bethlehem Steel Corp.
Dr. Anna M. Baetjer, professor emeritus of environmental medicine, Johns Hopkins University
Dr. Charles A. Bishop, manager, chemicals and chemical processing, United States Steel Corp.
Mr. John W. Blanton, general manager, advance technology programs department, General Electric Co.
Dr. Frank T. Bodurtha, senior consultant, environmental quality, E. I. du Pont de Nemours & Co.
Dr. F. Herbert Bormann, professor of forest ecology, Yale University
Dr. Myrtle L. Brown, food and nutrition board, National Academy of Sciences
Dr. Talmage P. Bursh, department of chemistry, Louisiana Southern University
Dr. Jack G. Calvert, professor of chemistry, Ohio State University.
Dr. Melbourne Romaine Carriker, professor, College of Marine Studies Field Station, University of Delaware
Dr. James P. Carter, project director, the maternal and child health/family planning training and research center, Meharry Medical College
Dr. Alison P. Casarett, associate dean, Cornell University
Dr. Herman Cember, professor, environmental health, Northwestern University
Dr. Thomas D. Crocker, associate professor of economics, University of California—Riverside
Dr. William J. Darby, president, Nutrition Foundation, Inc.
Miss Joyce P. Davis, nuclear engineer, Consolidated Edison Co. of New York
Mr. Errett Deck, chairman, legislative committee, Washington State, Department of Agriculture
Miss Alice Dolezal, acting chief, section of radiation control, Minnesota Department of Health
Dr. Samuel S. Epstein, Swetland Professor of Environmental Health and Human Ecology, Case Western Reserve University
Dr. Frances L. Estes, Box 33, Mendon, Mich. 49072
Mr. Milton Feldstein, deputy air pollution control officer, Bay Area Air Pollution Control District
Dr. Shelby Delos Gerking, professor of zoology and chairman, department of zoology, Arizona State University
Dr. Leon Golberg, research professor of pathology, Albany Medical College
Dr. William Guillory, department of chemistry, University of Utah
Dr. Gordon E. Guyer, director of cooperative extension services, Michigan State University
Dr. Arie J. Haagen-Smit, professor and director, plant environment laboratory, California Institute of Technology
Dr. Milton Harris, 3300 Whitehaven Street NW., Suite 500, Washington, D.C. 20007
Mr. Harold E. Hodges, director, division of air pollution control, Tennessee Department of Public Health
Dr. James G. Horsfall, department of plant pathology and botany, Connecticut Agriculture Experiment Station
Mr. Harry H. Hovey, Jr., associate director, division of air resources, New York State Department of Environmental Conservation
Mr. Lee E. Jager, chief, air pollution control division, Michigan Department of Natural Resources
Dr. Bostwick H. Ketchum, associate director, Woods Hole Oceanographic Institution
Dr. Charles C. Kidd, president, Olive Hardey College

Dr. Gene Elden Likens, professor and acting chairman, section of ecology and systematics, Cornell University
Dr. Robert Merton Love, professor of agronomy and agronomist, University of California—Davis
Dr. Caro Luhrs, 2939 Van Ness Avenue, N.W., Washington, D.C. 20008
Dr. James McCarroll, assistant medical director, medical services division, personnel department, City of Los Angeles
Dr. Roger O. McClellan, director of inhalation toxicology research institute, Lovelace Foundation
Mr. Marcus R. McCraven, director of environmental engineering, United Illuminating Company
Dr. James Thompson McFadden, professor of natural resources, University of Michigan
Dr. Robert Miller, National Cancer Institute, National Institutes of Health
Mr. William J. Moroz, professor, mechanical engineering and director, center for air environmental studies, Pennsylvania State University
Dr. Emil M. Mrak, chancellor emeritus, University of California—Davis
Mr. Hugh Mullen, I. U. Conversion Systems, Inc.
Dr. Sheldon D. Murphy, associate professor of toxicology, Harvard University School of Public Health
Dr. Norton Nelson, director, Institute of Environmental Medicine, New York University Medical Center
Dr. John M. Neuhold, director, Utah State University Ecology Center, professor, department of wildlife science, Utah State Universtiy
Dr. Eugene P. Odum, director, Institute of Ecology, University of Georgia
Dr. Gordon Howell Orians, professor of zoology, University of Washington
Dr. Clarence B. Owens, Sr., professor of agronomy, Florida Agricultural and Mechanical University
Dr. Ruth Patrick, chief curator of limnology, Academy of Natural Sciences of Philadelphia
Mr. Rafael Cruz Perez, vice president, Servicios Ambientoles de Puerto Rico, Inc.
Dr. Carolyn F. Phillips, senior engineer, New York Department of Labor
Mr. George C. Pimentel, professor of chemistry, University of California—Berkeley
Mrs. Mary Hanson Pritchard, curator of parasitology, associate professor of zoology, University of Nebraska
Dr. Reinhold A. Rasmussen, associate plant physiologist, Washington State University
Dr. John Paul Rier, Jr., professor of botany, associate dean of the graduate school, Howard University
Dr. C. Richard Robins, Matag professor of marine biology, School of Marine and Atmospheric Sciences
Mr. Elmer Robinson, professor of civil engineering, Washington State University
Dr. V. K. Rowe, director, toxicological affairs, The Dow Chemical Co.
Dr. Rosmarie von Rümker, managing partner, RVR Consultants
Mr. C. William Simmons, executive officer, State of California—Resources Agency, Air Resources Board
Mr. Emmet F. Spencer, Jr., principal environmental control engineer, Kaiser Engineers
Mr. Morton Sterling, director, Wayne County Air Pollution Control Division, Wayne County Department of Health
Mr. Arthur C. Stern, professor of air hygiene, University of North Carolina
Mr. Victor H. Sussman, director, Stationary Source Environmental Control Office, Ford Motor Co.
Mr. James G. Terrill, Jr., manager of environmental consulting, Westinghouse Electric Co.
Dr. Ruth F. Weiner, chairman, department of physical sciences, Florida International University
Dr. Bernard Weinstock, manager, senior scientist, Ford Scientific Research Laboratory
Mr. Elmer P. Wheeler, manager, environmental health, Monsanto Co.
Dr. Kenneth T. Whitby, professor of mechanical engineering, University of Minnesota
Dr. James L. Whittenberger, Harvard School of Public Health, Harvard University
Mr. Raymond L. Wiggins, 4154 S. Syracuse Street, Denver, Colo.

Dr. John T. Wilson, Jr., professor and chairman, department of environmental health, University of Washington
Dr. Katherine W. Wilson, senior scientist, Copley International Corp.
Dr. Bernard R. Woodson, Jr., dean, school of science and technology, Virginia State College

Mr. BOLAND. How many are there?

Dr. TALLEY. The Science Advisory Board is in the process of being reformed now. It is composed of a group of non-Federal scientists from the academic and private sector to provide advice to the Administrator and to the Assistant Administrators on the various scientific issues before the agency. I think Mr. Alm may be more familiar with the present breakdown and structure of the various programs. This is in a state of transition.

Mr. BOLAND. How many serve on the advisory board?

Mr. TRAIN. There are 20 on the Science Advisory Board Executive Committee. However, the Board consists of several advisory committees bringing the total to 78 including the Executive Committee.

It has, in fact, been operating after a fashion for some time but has been undergoing a reorganization. I have made it, Mr. Chairman, directly responsible to me so that the Administrator would have the benefit of the direct advice of the group rather than having to be responsible simply to the Assistant Administrator for Research and Development as it was before.

As you have gathered from these hearings, some of our research work cuts across all of our programs and indeed some of the research is done in different program areas. Dr. Emil Hrak is the Chairman of the Board. He is the Chancellor Emeritus of the University of California at Davis. There are public health officials and scientists in various disciplines who are members. We will make this list available and the organizational breakdown available.

Mr. BOLAND. How often does it meet?

Mr. TRAIN. It meets on call. It has met fairly recently over the past year. The council has funding and staffing from EPA. It has a small staff. It has an Executive Director, Dr. Thomas Bath. What other staff capability I am not sure.

Dr. TALLEY. Fifteen staff members with a budget of about half a million dollars. The staff members are assigned one each to the various panels. They provide the exceutive secretariat.

Mr. ALM. I might add this committee puts all of our scientific committees under one umbrella, which is a very helpful thing.

Mr. TRAIN. There has been a Committee on Hazardous Materials. I am not sure that that name is exactly right, which has been operating for years as an independent advisory group. The idea is to relate these different groups, as Mr. Alm said, under one head. I would like to emphasize my own sense of the great importance of the Environmental Protection Agency having a ready source of independent, objective scientific expertise to look at its programs, to identify areas in which research and other efforts by the agency are needed. Also, to provide a ready source of effective communication with the scientific and academic community. This Science Advisory Board helps serve this purpose as well. So much of what we do necessarily requires a strong scientific base that in my opinion it is vitally important that we have this sort of objective, independent oversight from the advisory committee reporting to me.

Mr. TALCOTT. Mr. Chairman?

Mr. BOLAND. Yes.

Mr. TALCOTT. Is there any other advisory group, council, board, organization which EPA staffs?

Mr. TRAIN. We just terminated these as a matter of fact. I was going to cite you an air and water group. They actually were the Presidential groups appointed by the President.

Mr. TALCOTT. You don't provide staff any more out of your budget for that?

Mr. TRAIN. We did. I believe we did. We don't now.

Mr. TALCOTT. Mr. Chairman, rather than take the time now, provide us with all the advisory committees, councils, organizations, boards, et cetera, that you provide staff from your budget for.

Mr. TRAIN. We will do that.

[The information follows:]

ENVIRONMENTAL PROTECTION AGENCY ADVISORY COMMITTEES

[Total, 14 committees]

	Number of committee members	Man-year's of support staff
Air Pollution Chemistry and Physics Advisory Committee (of SAB)	10	0.3
Ecology Advisory Committee (of SAB)	15	3.5
Effluent Standards and Water Quality Information Advisory Committee	9	3.0
Environmental Radiation Exposure Advisory Committee (of SAB)	10	1.0
Hazardous Materials Advisory Committee (of SAB)	15	5.5
Lake Michigan Cooling Water Studies Panel	16	2.0
National Air Pollution Control Techniques Advisory Committee (of SAB)	17	1.0
National Air Pollution Manpower Development Advisory Committee	12	1.5
National Air Quality Criteria Advisory Committee (of SAB)	15	1.3
National Drinking Water Advisory Council	15	2.0
President's Advisory Committee on the Environmental Merit Awards Program	13	
Science Advisory Board's Executive Committee	20	4.0
Technical Advisory Group for Municipal Waste Water Systems	16	1.0
State-Federal, Federal Insecticide, Fungicide and Rodenticide Act Implementation Advisory Committee	25	0.2

EPA advisory committees are established and chartered in accordance with requirements of the Federal Advisory Committee Act and OMB Circular No. A-63. Advisory committees are established as required by statute or when the Administrator determines that they are essential to obtain information and/or advice which is not available within the Agency.

Currently, the Agency has 14 advisory committees, including one Presidential advisory committee. Six of these committees advise the Agency concerning specific aspects of program implementation; these committees usually work directly with the appropriate EPA program office. The Presidential advisory committee advises the President and the Administrator on ways in which the President's environmental merit awards program can be expanded and enhanced. The remaining seven committees are responsible for providing expert and independent advice to the Administrator on issues relating to the scientific and technical problems facing the Agency, making recommendations concerning needed research and development activities, assessing the results of specific research activities, and related functions. The efforts of these committees are coordinated by an "umbrella" organization called the Science Advisory Board.

Mr. TALCOTT. I thought it was a good idea to consolidate some of these if you pay for the staffing of them.

Mr. TRAIN. We have been endeavoring to do this and terminate those we feel have outlived their usefulness.

Mr. TALCOTT. We wouldn't care how much advice you got from no matter where, so long as we are not paying inordinately for it or duplicating efforts.

Mr. ALM. Some of these committees, by the way are required by the legislation. We have a committee that advises us on our effluent guidelines required in the 1972 Water Pollution Control Act. We have another Committee on Drinking Water Standards. That, again, is required in the statute.

Mr. TALCOTT. We do some strange things in the Congress. It is not all coordinated and that is what makes it strange. If we got a look at it that would be better.

OFFICE OF PROGRAM INTEGRATION

Mr. BOLAND. On page I–6, program integration, what role does the development of integrated media strategies have in a research and development program? Why does it require 27 people at an average cost of $36,000 apiece?

Dr. TALLEY. Those people are the staff mainly of the Office of Program Integration under the previous structuring of the Office of Research and Development. Its function is to be integrated throughout headquarters, the field, and would not appear as a definable item.

This Office was responsible not only for developing strategies within the Office of Research and Development but also for the coordination of the programs of that Office with the program offices, Office of Air, the Office of Water, throughout the Agency.

R. & D. TECHNOLOGY TRANSFER

Mr. BOLAND. On page I–8 there is a summary of the technology transfer program. The cost is $1,315,000 and you have 12 people in this activity. How effective do you feel your efforts are here?

Dr. TALLEY. Very effective, sir. In the few months I had before I came on board I visited several of our regional offices and this was one of the programs that was mentioned as being very effective in our relationships with the States in enabling municipalities to take advantage of the research and development done by EPA. This program received very good ratings, excellent ratings. In fact, I intend to continue to emphasize the delivery of research and development, not only in its areas of current activity which are primarily aimed at water programs and municipal treatment but also to expand the program into the industrial waste treatment area and other areas of our total program.

Mr. BOLAND. You have 12 people in this activity?

Dr. TALLEY. Yes, sir.

Mr. BOLAND. Are they all in the central office?

Dr. TALLEY. They are now. They will be moved to the Cincinnati Laboratory as a part of the reorganization, placing them much closer to the people actually doing the research.

TOXIC SUBSTANCES

Mr. BOLAND. Turn to Toxic Substances and place TS–1 through 10 in the record at this point.

[The pages follow:]

Toxic Substances

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$6,838,200	$6,850,300	+$12,100
Research and Development...	1,208,600	1,209,000	+400
Total.....	8,046,800	8,059,300	+12,500
End-of-Year Employment			
Abatement and Control.....	45	45	...
Research and Development...	11	11	...
Total.....	56	56	...

Overview and Strategy

Today there are more than 20,000 chemical substances being produced in the United States for commercial purposes, with 500 to 700 new chemicals introduced into the marketplace each year. Of this number about 80 percent are toxic under some conditions, and about 1.5 percent are sufficiently hazardous to cause environmental concern. A number of these chemical compounds, such as vinyl chloride, arsenic, polychlorinated biphenyls, asbestos, and others, have been involved in incidents which have created widespread public attention. These factors and others led EPA to create its toxic substances program.

EPA's current toxic substances program is carried on under the authorities granted in the Agency's major legislative mandates, such as the Clean Air Act, the Federal Water Pollution Control Act, and other authorities. Major program activities include development and coordination of Agency efforts under these authorities addressed to the problems of toxic materials which cross traditional media lines, use and development of predictive techniques for early warning in identification of substances most likely to pose a

hazard to man or the environment, implementation of methods for monitoring air, water, and soil for selected toxic chemicals, and development of control strategies for multi-media toxic pollutants. Research is being conducted into the health effects of selected toxic substances and their metabolites to provide data on chemicals of current concern and provide background to support future regulatory efforts.

EPA will continue to deal with toxic substance problems by relying on other legislative authorities, either singularly or in combination, to mitigate as much of the hazard as possible. In addition, the Agency is increasingly encouraging the major chemical producers and processors to take more substantive voluntary steps to reduce chemical risks and contribute to environmental goals.

Summary of Increases and Decreases

1975 Toxic Substances Program.....	$8,046,800
Abatement and Control.....	+12,100
The increase requested will support the full-year cost of the October 1974 pay raise.	
Research and Development.....	+400
This increase is required for a minor adjustment in personnel compensation and benefits.	
1976 Toxic Substances Program Request.....	8,059,300

Toxic Substances

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control Standards and Guidelines..	$6,838.2	$6,850.3	+$12.1
Research and Development Processes and Effects.....	1,208.6	1,209.0	+.4
Total...	8,046.8	8,059.3	+12.5
End-of-Year Employment			
Abatement and Control Standards and Guidelines..	45	45	...
Research and Development Processes and Effects.....	11	11	...
Total...	56	56	...

Toxic Substances

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Standards and Guidelines.	$6,838,200	$6,850,300	+$12,100
Total.....	6,838,200	6,850,300	+12,100
End-of-Year Employment			
Standards and Guidelines.	45	45	...
Total.....	45	45	...

Purpose

The primary goal of the toxic substances abatement and control program is to reduce the danger to man and the environment posed by toxic substances. EPA plans to achieve this goal without placing needless burdens on industry. Accordingly the toxic substances program is designed to reduce the probability of incidents harmful to health or the environment resulting from toxic substances. Program activities are directed to: clarification of the risks to health and the environment associated with the manufacture, distribution, use, and disposal of new and existing chemical substances, with particular regard to chemical properties, production levels and trends, and exposure of the chemicals to man and the environment; more effective utilization of regulatory authorities and related tools available to the Agency to mitigate such risks, taking into account the economic and social impact of restrictions on toxic substances; and increasing the concern of and appropriate actions by the chemical and related industries to reduce risks to health and the environment associated with their activities.

1975 Program

The following activities are being pursued in 1975:

- New Approaches to Testing: This activity emphasizes encouraging increased industrial concern and appropriate actions in testing both new and existing chemicals entering commerce. Particular interest centers on those chemicals for which there are inadequate data concerning environmental risks but which are suspected of posing a hazard.

- Environmental Prediction: This early warning activity is directed to identifying and prioritizing previously unsuspected chemicals entering the environment which are most likely to pose a hazard in the near future.

- Data System: This activity will improve the ready availability in a usable form of authoritative information concerning the manufacture, use, distribution, and disposal of chemical substances. This information base will assist in identifying those new chemical substances entering commerce which deserve in-depth analyses to determine whether they pose a threat.

- Strategy Development and Coordination: This effort emphasizes identification of interrelationships and common purposes of toxic substances; regulatory strategies and standards required under different authorities; multiple applications and transferability of principles used in setting standards on the same or similar substances under different authorities; and multiple sources of the same toxic substances, their accumulation in different media, their routes through the environment, and their pathways to human exposure. Also of concern is the interface between EPA activities and the authorities and interests of other agencies, including FDA, OSHA, NCI, and CPSC.

- Response to Crises: Significant resources will continue to be committed to coordinating EPA responses to crises involving toxic substances that unexpectedly occur throughout the country.

- Chemical and Economic Assesment: EPA analyses classes of chemicals as the basis for determining the risks associated with new products in these classes which are likely to appear on the market in the near future. Central to consideration of options is the balancing of risks and benefits.

1975 Accomplishments

- Initiation of action programs to clarify and reduce the risks associated with several highly toxic chemicals and substances (e.g. asbestos, vinyl chloride and polyvinyl chloride); and

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- Response to crises involving such toxic chemicals as vinyl chloride, conduct of monitoring to establish the scope and magnitude of the problem, and suggestion of means for mitigating or eliminating the hazards involved.

1976 Plan

- Continue review and evaluation of testing methods;

- Continue development of criteria and techniques for early warning through identification of toxic substances which may pose a hazard;

- Complete development of a data system that will enable quick identification on chemicals of concern;

- Continue response to crises involving toxic substances; and

- Begin analysis of chemical classes as the basis for determining the risks associated with new products.

Purpose of Increase

The requested increase will support the full-year costs of the October 1974 pay raise.

Toxic Substances

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and Effects.....	$1,208,600	$1,209,000	+$400
Total.....	1,208,600	1,209,000	+400
End-of-Year Employment			
Processes and Effects.....	11	11	...
Total.....	11	11	...

Purpose

This program supports EPA's Office of Toxic Substances by carrying out research on the effects of toxic substances and their metabolites on human health and the ecosystem. Protocols for testing substances to determine the potential hazard of their release into the environment are developed. Information is needed on the transport and persistence of toxic substances as well as their ecological and health effects. Analytical chemistry methods are being developed to measure and identify these pollutants.

Toxic Substances

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects...	$1,208,600	$1,209,000	+$400

A program of research on the effects of toxic substances and their metabolites on human health is essential to support the activities of EPA's Office of Toxic Substances. Protocols for premarket testing of toxic substances must be established and validated, and criteria must be established for deciding which toxic substances should be declared hazardous to human health.

A program to determine the ecological processes and effects of pollutants designated as toxic substances is under way. Data are collected to provide a sound scientific basis for the establishment of water quality standards for such uses as public water supply, recreation, fish and wildlife propagation, agricultural supply and industrial purposes. Information is developed to relate the concentration, form, transport processes, and acute and chronic effects of toxic substances to the size, character, composition, and location of these sources.

1975 Program

An evaluation of the hazards of human contact with toxic substances is being implemented by conducting animal toxicology studies of specific compounds. The development of laboratory methods for toxicological screening of toxic substances to identify which compounds are likely to persist in the environment or have adverse effects on man or aquatic and terrestrial life is being conducted. To evaluate mammalian effects, a variety of tissues are exposed to the compounds. To evaluate ecological effects, the compounds are tested in model ecosystems designed to study specific characteristics.

1975 Accomplishments

- Discovered in a chronic feeding study that hexachlorobenzene accumulates to more toxic levels in the second generation than the first generation of animals;

- Discovered that cadmium is a moderately strong agent in inducing birth defects; and

- Published an interim analytical method for asbestos in water.

1976 Plan

- Toxicology studies on substances of current interest will be continued, as will development of screening methods by which toxic substances can be identified. In addition, studies of the sources, transport, and biological effects of toxic substances in terrestial ecosystems are being planned. Another significant objective planned for 1976 is completion of the design of an automated analytical method for asbestos in water and development of sampling techniques.

Purpose of Increase

This increase is required for a minor adjustment in personnel compensation and benefits.

TOXIC SUBSTANCES

Mr. BOLAND. You are asking for $8,059,300 for this activity in 1976. That is an increase of $12,500 above 1975, and is, for all practical purposes, a continuation of the 1975 program. Is this true?

Mr. TRAIN. Essentially, yes, sir.

Mr. BOLAND. How long has this special area of toxic substances been carried as a separate area within the EPA?

Mr. AGEE. I believe it has been for fiscal year 1974 and 1975, to the best of my knowledge.

VINYL CHLORIDE

Mr. BOLAND. The other day Mr. Baucus, I think, asked what areas of environmental pollution looked to be the most significant downstream. I think you answered that toxic substances such as vinyl chloride, asbestos, et cetera, may present some of the worst health hazards to the population as you look ahead. Was it EPA that identified the problem with vinyl chloride in the manufacturing plant the past year or two?

Mr. TRAIN. No, I think it was the B. F. Goodrich Co. that identified this and reported publicly to the Government the fact of certain rare liver cancers in workers exposed to vinyl chloride.

Mr. BOLAND. On page TS–5, under "Abatement and control," you note that your work must take into account the economic and social impact of restrictions on toxic substances. I would imagine that this is an area where you could have significant economic impact through regulations and standards. What has been your experience with that problem to date, particularly as it concerns asbestos manufacturing and vinyl chloride?

Mr. TRAIN. We have actually imposed no standards with regard to vinyl chloride. Here we are dealing with vinyl chloride outside of the factory gates, so to speak, ambient concentrations to which communities would be exposed. We are in the process of developing a proposal with regard to vinyl chloride emissions, hopefully for proposal this coming June.

With regard to asbestos, we do have a technology base standard now in effect, which is designed to limit the emissions of asbestos.

ENVIRONMENTAL PREDICTION OF CHEMICALS

Mr. BOLAND. On page TS–6, under "Environmental prediction," you indicate that an early warning activity has been developed which is directed at identifying previously unsuspecting chemicals entering the environment which are likely to pose a hazard. Give us one or two examples of what that new system has identified as a hazardous chemical in the last 12 months.

Mr. AGEE. Our people have identified mercury, and cadmium, and they did some work on vinyl chloride. They do maintain a register and they are proceeding toward getting data on the potential hazards of all the roughly 20,000 chemicals that are manufactured today and the hundreds of new ones coming along each year.

They have identified and are doing work to determine the total body burden for an individual for cadmium or mercury. This work should contribute to our efforts under water, air, other programs which address regulation of cadmium and mercury.

RESPONSE TO TOXIC SUBSTANCES CRISES

Mr. BOLAND. On the same page, under "Response to crises," you say that significant resources will continue to be committed to coordinating EPA responses to crises involving toxic substances that unexpectedly occur throughout the country.

Again, during the last 12 months, what unexpected crisis concerning toxic substances did occur?

Mr. AGEE. The principal one was vinyl chloride. This group coordinated our efforts in vinyl chloride, which systematically surveyed a dozen or more vinyl chloride or polyvinyl chloride manufacturing plants around the country, sampled the areas outside of the factories to determine levels of vinyl chloride in the ambient air. Our people did work with the industries manufacturing these and encouraged them to take what steps they could to reduce the discharge of vinyl chloride. A second example is the problem of asbestos in drinking water. The Office of Toxic Substances is coordinating EPA efforts on this problem.

Mr. TRAIN. I might add to what Mr. Agee has said, that when concern was first expressed about contaminants in drinking water, partially as a result of the New Orleans experience, the resources of the Toxic Substances Office were brought to bear. Our drinking water supply resources were very limited at that particular time. Indeed, the toxic substances group has been providing a great deal of the competence that has been permitting the drinking water program to move ahead and to come to grips with these problems as they have surfaced.

COOPERATION WITH MANUFACTURERS

Mr. BOLAND. How would you rate cooperation with the manufacturers in this area?

Mr. TRAIN. I think on the whole very good. I think that particularly in terms of larger manufacturers with good resources, certainly the motivation is to insure that risky products of one kind or another are properly identified and controlled. I don't think there is any question about it. They so recognize that it is in their self-interest to insure that problems of this sort either do not occur or, if they do occur, they are promptly dealt with. I know when the vinyl chloride problem first surfaced we had one or two meetings with a wide spectrum of the major manufacturing organizations involved.

My own feeling is that their response was very, very cooperative. Doubtless as you get into specific control technologies and down to dollars and cents of given technologies and regulations, then you begin to get, understandably and properly, into discussion and differences of opinion. However, in terms of the goals and the principles involved, I don't know of any real disagreement.

Mr. AGEE. Industry has been very, very cooperative once we have identified a hazardous material. On many items they can take some very fundamental housekeeping steps in their industrial plants themselves to reduce the discharge of a lot of these materials, such as vinyl chloride, which was a matter of ventilation and covering their cooking kettles so that gaseous material did not escape. When we worked on mercury a few years ago, much of the reduction came about by good housekeeping, just keeping the mercury from getting into the waste streams. The cooperation with industry is generally very, very good.

TOXIC SUBSTANCES ENFORCEMENT

Mr. BOLAND. I note that you have no enforcement activities in the justifications for this media. Does EPA lack enforcement power here?

Mr. TRAIN. Yes, sir.

Mr. BOLAND. Are you in the process of establishing standards?

Mr. TRAIN. No. This relates to the fact that we have proposed toxic substances control legislation which is now yet to be enacted. There would be enforcement authority if that legislation were passed.

Mr. BOLAND. You do set standards?

Mr. TRAIN. No, sir. In anticipation of eventual passage we have been considering candidate chemicals and approaches for developing standards for test protocols but we are not actually in the process of setting any standards or regulations. The Toxic Substances Control Act calls for standards for test protocols to serve as guidelines for the testing and reporting of the results of tests of chemicals.

In addition, the legislation authorizes EPA to regulate the production and use of substances found to pose an unreasonable risk to health or the environment. We have been examining principles of such regulatory decisions but have not been actually developing any regulations.

Mr. QUARLES. Some types of controls over toxic substances are contained under the air and water laws. Of course, there is enforcement of those under the air and water programs discussed earlier.

Mr. BOLAND. I take it that you don't have the power to close down a vinyl chloride plant?

Mr. TRAIN. If we could in fact establish in court and carry the burden of proof of establishing an imminent hazard to public health because of the emission from that plant, yes, we could. The kinds of levels we are talking about really don't give rise to that kind of situation.

HEXACHLOROBENZINE OR DES

Mr. BOLAND. For research and development the level of funding is the same for 1976 as for 1975. I note the last sentence on page TS-9 indicates a problem of feeding cattle hexachlorobenzine. This has been in the press lately and, as I understand it, this is used for the purpose of fattening cattle, growing cattle at a more rapid rate; is that right?

Mr. ALM. Hexachlorobenzine or DES.

Mr. BOLAND. In what connection is hexachlorophen used?

Dr. TALLEY. That is a byproduct in chemical manufacture. The only reason it gets into cattle feed would be through an accident. Still, you are correct. It was in the press. I believe that we were able to supply Mr. Agee's people with the results of some lab experiments previously on the toxic effects of STB. The DES, as you say, was used to fatten cattle but the FDA limits no longer allow it to be used.

Mr. BOLAND. Is it banned?

Dr. TALLEY. As feed for cattle, yes, but it is also used for morning-after purposes.

Mr. BOLAND. How about hexachlorophen and hexachlorobenzine; are they banned?

Dr. TALLEY. I am not certain.

Mr. AGEE. I cannot answer that.

Mr. TALCOTT. I cannot let it pass that human consumption of DES is permitted but not consumption by cattle. There are some other things like that, too. There are some restrictions on the use of nicotine in sprays for vegetables that are prohibited by some Federal agencies and 100 times as much is permitted in smoking in cigarettes which are not prohibited for human consumption. Where do we get these discrepancies?

Dr. TALLEY. In extension of your comments, 2 days ago we had discussions on the difference between voluntary and involuntary exposure to something that is potentially harmful, plus the fact that one-time exposure which may be large and acute, the body is able to adjust to it and pass out the effects, whereas we are not certain that chronic low-level exposures are going to escape that easily. An example is cough syrup that may contain 5 percent of chloroform which you take of your own volition and stop taking after you don't need it any longer, versus ingesting it day after day and year after year in water.

Mr. TALCOTT. That is not true of DES for human consumption, then?

Dr. TALLEY. DES would be available only on a doctor's prescription. The person taking it should be told by the physician of all possible side effects.

PROGRAM MANAGEMENT AND SUPPORT

Mr. BOLAND. Turn to "Program management and support."

Place pages PMS–1 through 18 in the record at this point.

[The pages follow:]

Program Management and Support

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$31,529,800	$35,975,600	+$4,445,800
Enforcement....	13,425,800	15,643,900	+ 2,218,100
Research and Development..	18,587,300	18,536,400	- 50,900
Total.....	63,542,900	70,155,900	+6,613,000
End-of-Year Employment			
Abatement and Control.....	197	195	- 2
Enforcement....	149	169	+20
Research and Development..	217	177	-40
Total.....	563	541	-22

Overview

This media encompasses the overall management and support of the action oriented programs described in the foregoing media sections. Resources for the Assistant Administrators, their principal deputies, office directors and their immediate staffs are provided directly through the Program Management and Support media, rather than through charges to each of the program media. Management functions covered include the development of program policies and strategies, planning of media activities, monitoring and review of program performance, including that performed in the regions, and the direction of program activities carried out in headquarters. In the enforcement area, program management also includes the staffing and funds for EPA's Office of General Counsel at headquarters and Offices of Regional Counsel in the ten regions.

Basic support services provided to all Agency functions are managed centrally and charged back to each appropriation on a prorated basis. The program support subactivity in each appropriation includes that portion of costs required to support the programs conducted and funded under the appropriation. Specific descriptions of support services and proposed changes for 1976 are included in the section on Agency and Regional Management.

Summary of Increases and Decreases

1975 Program Management and Support.....	$63,542,900
Abatement and Control.....	+ 4,445,800
Program Support - see Agency and Regional Management	
Enforcement.....	+ 2,218,100
Program Management. An increase of 25 positions is required for the Office of General Counsel and Offices of Regional Counsel which will be somewhat offset by a decrease of 5 water enforcement support positions. The growing number of grants, contracts, and similar documents requiring legal review and increased litigation have produced a rapidly growing workload.	
Program Support - +1,772,700. See Agency and Regional Management.	
Research and Development.....	- 50,900
Program Support - see Agency and Regional Management.	
1976 Program Management and Support Request	70,155,900

Program Management and Support

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control			
Program Management....	$6,163.9	$6,398.0	+$234.1
Program Support.	25,365.9	29,577.6	+4,211.7
Subtotal..	31,529.8	35,975.6	+4,445.8
Research and Development			
Program Management....	6,987.5	4,876.5	-2,111.0
Program Support.	11,599.8	13,659.9	+2,060.1
Subtotal..	18,587.3	18,536.4	-50.9
Enforcement			
Program Management...	3,859.7	4,305.1	+445.4
Program Support	9,566.1	11,338.8	+1,772.7
Subtotal..	13,425.8	15,643.9	+2,218.1
Total...	63,542.9	70,155.9	+6,613.0
End-of-Year Employment			
Abatement and Control			
Program Management....	197	195	-2
Program Support.	...	...	...
Subtotal..	197	195	-2

	1975	1976	Increase or Decrease
Research and Development			
Program Management....	217	177	-40
Program Support.	...	...	...
Subtotal..	217	177	-40
Enforcement			
Program Management....	149	169	+20
Program Support.	...	...	...
Subtotal..	149	169	+20
Total.	563	541	-22

Program Management and Support

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Program Management....	$6,163,900	$6,398,000	+$234,100
Program Support.....	25,365,900	29,577,600	+4,211,700
Total.....	31,529,800	35,975,600	4,445,800
End-of-Year Employment			
Program Management....	197	195	-2
Program Support.....	...	...	...
Total.....	197	195	-2

Purpose

This subactivity provides the resources for management and support services required for each of the media programs funded through the Abatement and Control appropriation.

Program Management and Support

Abatement and Control

Program Management

	1975	1976	Change
Program management..	$6,163,900	$6,398,000	+$234,100

This subactivity provides for the overall management of the Office of Air and Waste Management and the Office of Water and Hazardous Materials, including program planning, policy and strategy development, performance monitoring and review (including those portions of the program carried out in the ten regional offices), and direction of headquarters activities. To carry out these functions, managerial positions are provided to each office as follows:

	1975	1976
Office of Air and Waste Management	37	37
Office of Air Quality Planning and Standards.....	11	11
Office of Mobile Sources Air Pollution Control.....	13	14
Office of Solid Waste Management Programs.....	9	9
Office of Radiation Programs.....	25	25
Office of Noise Abatement and Control.....	8	8
Total, Office of Air and Waste Management.....	103	104
Office of Water and Hazardous Materials.....	31	31
Office of Water Programs Operations	6	3
Office of Water Planning and Standards.....	8	8
Office of Pesticides Programs....	38	38
Office of Toxic Substances.....	5	5
Total, Office of Water and Hazardous Materials.....	88	85

Another six positions and $173,500 are provided to the Intergovernmental Relations Division of the Office of Legislation. This Division provides liaison and coordination with State, interstate, and local government organizations.

Purpose of Increase

This increase represents the full-year cost of the October 1974 pay raise as well as a transfer of funds between accounts.

Program Management and Support

. Abatement and Control

Program Support

	1975	1976	Change
Program support.....	$25,365,900	$29,577,600	+$4,211,700

This subactivity includes the prorated share of EPA's total funding requirements of common support services. These funding requirements cover certain agency wide and regional leases, communications, and other common service costs which are managed through a single headquarters and ten regional accounts. These requirements are fully described in the section covering Agency and Regional Management. The prorated share charged under this element represents that portion required to support the programs funded and conducted under the Abatement and Control appropriation account.

Purpose of Increase

This increase, together with those under similar elements in the Research and Development and Enforcement appropriation accounts, are described under the section covering Agency and Regional Management.

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Program Management and Support

Enforcement

	1975	1976	Increase or Decrease
Budget Authority			
Program Management....	$3,859,700	$4,305,100	+$445,400
Program Support.	9,566,100	11,338,800	+1,772,700
Total.....	13,425,800	15,643,900	+2,218,100
End-of-Year Employment			
Program Management....	149	169	+20
Program Support.	...	...	...
Total.....	149	169	+20

Purpose

This activity encompasses the overall management and support of media programs funded through the Enforcement appropriation. It also provides for the staffing and funding of EPA's Office of General Counsel in headquarters and the Office of Regional Counsel in the 10 regions.

Program Management and Support

Enforcement

Program Management

	1975	1976	Change
Program management..	$3,859,700	$4,305,100	+$ 445,400

This subactivity provides for overall management of the Office of Enforcement, including the development of program policies and strategies, the overall planning of enforcement activities, the monitoring and review of the program, including those activities performed in the regions, and the direction of the program activities performed in headquarters. It also covers the staffing of the Offices of General Counsel and Regional Counsel which serve the legal needs of all components of the Agency. Furthermore, this activity is responsible for overseeing the achievement of management-by-objective (MBO) items which involve enforcement activities and through legal review contributes to the improved management of the construction grants program.

To carry out these functions, positions are allocated as follows:

	1975	1976
Office of Assistant Administrator for Enforcement..	31	26
Office of Water Enforcement.....	5	5
Office of General Enforcement...	4	4
Office of General Counsel.....	72	77
Office of Regional Counsel.....	37	57
Total.....	149	169

Purpose of Increase

The requested increase is to provide for additional staff for the Office of General/Regional Counsel to meet the increased workload of expanding Agency programs and new and existing legislation, examples of which include:

- More stringent legal review of the expanded number, dollar volume, and complexity of construction grants which are a result of the creation of the multi-step construction grant process and more detailed statutory requirements;

- Significant legal review of environmental impact statements required for these grants;

- Increased grants-connected litigation due to growing number of grant awards;

- Increased legal work in the area of indirect source review required under the Clean Air Act;

- Litigation related to the Clean Air Act and permit issuance activities under the Federal Water Pollution Control Act (FWPCA), as amended;

- Expanded legal support resulting from the re-registration of 35,000 existing pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act;

- Litigation involving at least 30 of the effluent guidelines under the FWPCA;

- Expanded legal activity involved in the administration of the new energy legislation;

- Substantial legal supervision in the preparation of environmental impact statements;

- Significant litigation and legal review of toxic pollutant standards;

- Increased workload in the area of review of new legislation, particularly concerning toxic substances and drinking water;

- Increased workload due to the administrative penalties and public hearings requirements of the pesticides and water legislation; and

- The legal review needed for the standards and regulations required under the pesticides and water legislation.

The 1976 request reflects the growing role and importance of the Offices of Regional Counsel. As EPA has moved to decentralize its many activities, the Regional Administrator has looked to his Regional Counsel for legal support. This is particularly true in the construction grants program where legal review of grant documents is critical. As the grant program has grown in size and complexity, so has the resultant Agency responsibility for adequate overview. Another area of related concern in 1976 is the legal review of environmental impact statements related to grant issuance. Litigation activity is also expected to increase in 1976 related to the construction grant program, the permit issuance process, the adequacy of effluent guidelines and decisions as to the need to prepare environmental impact statements.

Program Management and Support

Enforcement

Program Support

	1975	1976	Change
Program support..	$9,566,100	$11,338,800	+$1,772,700

This activity constitutes the prorated share of EPA's total funding requirements for common support services. These funding requirements cover certain agencywide and regional leases and communication and other common service costs which are managed through the Agency and Regional Management account. The prorated share charged under this element represents that portion required to support the programs funded and conducted under the Enforcement appropriation account.

Purpose of Increase

This increase, together with those under similar elments under the Abatement and Control and Research and Development appropriation accounts, are described under the section covering Agency and Regional Management.

Program Management and Support

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Program Management....	$ 6,987,500	$ 4,876,500	-$2,111,000
Program Support.	11,599,800	13,659,900	+ 2,060,100
Total.....	18,587,300	18,536,400	-50,900
End-of-Year Employment			
Program Management....	217	177	-40
Program Support.	...	...	...
Total.....	217	177	-40

Purpose

This activity provides the resources for management and support services required for each of the media programs funded through the Research and Development appropriation.

Program Management and Support

Research and Development

Program Management

	1975	1976	Change
Program management....	$6,987,500	$4,876,500	-$2,111,000

Resources for the overall management of the Office of Research and Development, including the four National Environmental Research Centers and the Washington Environmental Research Center are provided through program management. These functions include development of program policies and strategies, overall planning of research and development activities, monitoring and review of program performance, and direction of the program activities performed in headquarters and the Research Centers. This activity also provides for the regional research representative and staff in each of the 10 regional offices.

To carry out these functions, positions are allocated as follows:

	1975	1976
National Environmental Research Center, Durham.....	17	12
National Environmental Research Center, Las Vegas.....	14	11
National Environmental Research Center, Corvallis.....	22	17
National Environmental Research Center, Cincinnati.....	30	24
Office of Research and Development....	92	71
Regional offices.....	42	42
Total.....	217	177

Purpose of Decrease

Reorganization plans currently being developed are pointed at reducing the amount of effort expended on overall management within the Office of Research and Development. More effective use of manpower is the aim of the new plans. More effective utilization will result in less demand for pure overhead activities, allowing the indicated reduction of $2 million and 40 positions.

Program Management and Support

Research and Development

Program Support

	1975	1976	Change
Program support..	$11,599,800	$13,659,900	+$2,060,100

This subactivity includes the prorated share of EPA's total funding requirements for common support services. These funding requirements cover certain agencywide and regional leases, communications, and other common service accounts. These requirements are fully described in the section covering Agency and Regional Management. The prorated share charged under this element represents that portion required to support the programs funded and conducted under the Research and Development appropriation account.

Purpose of Increase

This increase, together with those under similar elements in the Abatement and Control and Enforcement appropriation accounts, are described under the section covering Agency and Regional Management.

PROGRAM MANAGEMENT AND SUPPORT DISTRIBUTION

Mr. BOLAND. This covers the overall program management and support for the agency, and the $70,155,000 requested is to be allocated to the different appropriations on what basis?

Mr. ALM. This category includes both program management, program support, and a prorated share of agency and regional support costs. Program management includes top management staff for each one of the assistant administrators, except the Assistant Administrator for Planning and Management, plus the Office of General Counsel, and the regional counsels.

The support category covers all agency support and is allocated among the various accounts. The total amount of support for the Agency is $67 million, a $10 million increase over 1975.

Mr. BOLAND. What relationship is there between the employment figures on page PMS–1 and the charges to the budget authorities? For instance, $184,490 per employee for abatement and control; $92,567 per employee for enforcement; $104,725 per employee for R. & D.

Mr. ALM. The different costs per employee?

Mr. BOLAND. Yes.

Mr. ALM. I am not sure which numbers you are referring to.

Mr. BOLAND. I am referring to the abatement and control, $35,975,-600, and 195 people.

Mr. ALM. Let me explain that. Of the abatement and control amount, $6.4 million is for program management and $29.6 million is for support costs. I think that is the reason you have the different figures.

Mr. BOLAND. What about enforcement?

Mr. ALM. For enforcement, $4.3 million is for program management and $11.3 million is for program support.

INCREASES IN PROGRAM MANAGEMENT

It might be helpful if I could explain the increases in program management.

Mr. BOLAND. Go ahead.

Mr. ALM. In abatement and control, the increased costs are entirely for the purpose of the pay raise. There is actually a reduction of two positions. In the R. & D. category there is a reduction of $2 million. This reflects a reduction of 40 positions in the overall management of the program. Later on, as we talk about energy research and development, there is an offsetting increase for direct program activities. In the enforcement area there is an increase of $445,000 for program management. This includes 25 positions in the Office of General Counsel, 20 of them in the regions, 5 in headquarters, and a reduction of 5 positions in the Office of the Assistant Administrator for Enforcement.

OFFICE OF GENERAL COUNSEL

Mr. BOLAND. How many lawyers do you have in the General Counsel's Office?

Mr. ZENER. Mr. Chairman, 45 in the headquarters and 23 distributed among the 10 regions. That is where we plan to make the bulk of the increase. Our primary concern here is with legal review of grants.

With the tremendous increase in the grant program, we feel there is a necessity for more lawyers in the regions to give the grants a review as they go out and deal with the legal questions inevitably arising during the course of a grant program.

ENFORCEMENT PROGRAM LAWYERS

Mr. BOLAND. How many lawyers are in enforcement?

Mr. JOHNSON. In the enforcement program, aside from the General Counsel's Office, it is hard to say because some have law degrees but also engineering degrees. Acting in the legal capacity, we have in the neighborhood of 110, Mr. Chairman, of which there are roughly 8 or 9 in every region, adding up to a total of 85; 25 in headquarters.

Mr. BOLAND. The lawyers that we are talking about here are not used in enforcement; you have your own?

Mr. JOHNSON. That is correct.

Mr. BOLAND. You have 110 all told?

Mr. JOHNSON. That is enforcement. That does not include the General Counsel's Office.

Mr. BOLAND. Do you need that many?

Mr. JOHNSON. Well, sir, I think we do. We figure 8 to 9 lawyers per a regional office, they have to enforce. That includes air, water and pesticides. That breaks it down to perhaps 4 to 5 lawyers in water, 2 or 3 air, and 1 or 2 in pesticides. Considering a region may include 5 or 6 States and covering hundreds of thousands of square miles. For example, region 5, Chicago, covers 6 Western States, huge industrial States, and 10 lawyers is a minimal figure.

Mr. BOLAND. We are for enforcement, no doubt about that. We want to be sure that you have sufficient personnel to enforce whatever standards and responsibilities you have. We wonder whether or not it would be better to use these people in providing help in solving some of the problems that areas might have.

The committee has noted an emphasis on what could be termed legalistic actions that are expensive and time consuming, not only for the Government but involve smaller communities and businesses who if given reasonable and proper assistance would help achieve the same end. What do you say to that?

Mr. JOHNSON. As an example, let me give you the printed program on the water side. We have issued over 32,000 permits and only about 1,000 of those has resulted in any request for administrative review through our adjudicatory hearing process. That is only about 3 or 4 percent of the total. The vast majority are in the process of being settled in some cases without a lawyer being involved at all. In most cases they were handled by engineers, GS–9 and 11 level. A tremendous amount is done in this program through negotiation. Further, we expect that less than 100 of the 1,000 requests will ever reach the hearing stage.

If we had not negotiated we could have never run the program. We are now down to the tough nuts of the program, steel companies and power companies and so forth. If they want to litigate there is no way we can go except with our own people in the breach and litigate with them.

Mr. BOLAND. Place a table in the record of total resources and positions for Enforcement.

[The information follows:]

Office of Enforcement Resources
(dollars in thousands)

		1975		1976		Increase or Decrease	
		Pos.	Amount	Pos.	Amount	Pos.	Amount
Air:							
Stationary Source....	Total	326	$8,544.7	333	$8,891.5	+7	+$346.8
	Hqrs.	(46)	(2,913.4)	(53)	(2,958.4)	(+7)	(+45.0)
	Regions	(280)	(5,631.3)	(280)	(5,933.1)	(...)	(+301.8)
Mobile Source.....	Total	78	2,205.2	111	3,128.5	+33	+923.3
	Hqrs.	(56)	(1,675.8)	(79)	(2,582.1)	(+23)	(+906.3)
	Regions	(22)	(529.4)	(32)	(546.4)	(+10)	(+17.0)
Water Quality:	Total	890	24,064.8	744	21,293.5	-146	-2,771.3
	*Hqrs.	(190)	(7,409.1)	(150)	(6,451.3)	(-40)	(-957.8)
	Regions	(700)	(16,655.7)	(594)	(14,842.2)	(-106)	(-1,813.5)
Water Supply:	Total	...	...	5	100.0	+5	+100.0
	Hqrs.	(...)	(...)	(5)	(100.0)	(+5)	(+100.0)
Pesticides:	Total	153	3,408.5	153	3,582.9	...	+174.4
	Hqrs.	(38)	(983.7)	(38)	(1,042.7)	...	(+59.0)
	Regions	(115)	(2,424.8)	(115)	(2,540.2)	...	(+115.4)
Noise:	Total	1	21.3	10	521.7	+9	+500.4
	Hqrs.	(1)	(21.3)	(10)	(521.7)	(+9)	(+500.4)
Program Management:	Total	40	1,222.7	35	1,135.4	-5	-87.3
	Hqrs.	(40)	(1,222.7)	(35)	(1,135.4)	(-5)	(-87.3)
Totals	Total	1,488	39,467.2	1,391	38,653.5	-97	-813.7
	Hqrs.	(371)	(14,226.0)	(370)	(14,791.6)	(-1)	(+565.6)
	Regions	(1,117)	(25,241.2)	(1,021)	(23,861.9)	(-96)	(-1,379.3)

* Includes National Field Investigation Center positions.

	1975		1976		Increase or Decrease	
	Pos.	Amount	Pos.	Amount	Pos.	Amount
Office of General Counsel Resources						
Total	109	2,637.0	134	3,169.7	+25	+532.7
Hqrs.	(72)	(1,680.7)	(77)	(1,799.7)	(+5)	(+119.0)
Field	(37)	(956.3)	(57)	(1,370.0)	(+20)	(+413.7)
Other						
Agency and Regional Support Costs:	...	9,566.1	...	11,338.8	...	+1,772.7
Total, Enforcement.....	1,597	51,670.3	1,525	53,162.0	-72	+1,491.7

TOTAL ENFORCEMENT PROGRAM

Mr. BOLAND. The total request for the enforcement program is $53,162,000. How many positions at headquarters and in the regions?

Mr. JOHNSON. In the enforcement program, excluding the Office of General Counsel, there are approximately 301 positions at headquarters. In the regions, approximately 1021 enforcement positions are located in the 10 regional offices. An additional increment of 69 positions are located in a field investigation center in Denver, Colo., which is a field function but reports directly to headquarters, not to the regional office.

MANAGEMENT AND SUPPORT ACTIVITIES

Mr. BOLAND. This section covers both program management and support. Do you have a table giving a better breakdown than in the justification of these support versus management activities?

Mr. ALM. Yes, I do. I will provide that.

[The information follows:]

ENFORCEMENT

	1974 actual	1975 estimate	1976 estimate	(+) or (−) 1976 over 1975
Program management	$3,334.3	$3,859.7	$4,305.1	+$445.4
Program support				
Agency support	7,124.4	7,703.6	9,559.9	+1,856.3
Regional support	1,583.0	1,862.5	1,778.9	−83.6
Total	12,041.7	13,425.8	15,643.9	+2,218.1

ENFORCEMENT PROGRAM

Mr. TRAIN. Mr. Chairman, could I make one remark on the enforcement program?

Mr. BOLAND. Yes.

Mr. Train. As you are aware, and we have been describing here this particularly, in the air program but also in the water program, we are really moving into the time frames mandated by the various statutes for attainment of standards as in the Clean Air Act, 1975, or with extensions, 1977. We are really at this point moving into the period when it is going to be very important that the agency is enabled to keep in very close touch with compliance and to be in a position to identify slippages in timetables, compliance schedules, and to be able to enforce, and I strongly feel that we can only do an effective job of this and a fair job of it if we have the adequate resources at hand.

CONTRACTS WITH PUBLIC INTEREST GROUPS

Mr. BOLAND. The committee has had called to its attention that EPA is putting private citizens affiliated with environmental groups under paid contracts to represent the EPA point of view at various public meetings. Is this so?

Mr. TRAIN. I am not sure that I can address this question. We have given some contracts to some outside public interest groups to organize workshops on the Clean Air Act, on the Federal Water Pollution Control Act, in various parts of the country and to conduct these and bring in the public to these workshops.

The conservation foundation contract which was entered into I think about 3 years ago, was a case in point. I am not aware that we are hiring anybody to represent EPA in the sense that you mentioned.

Mr. BOLAND. Why would you be using Dr. George W. Crawford, Environmental Coalition of North Central Texas? He apparently was under contract.

Is anybody familiar with him?

Mr. ALM. Do you know what the contract is for?

Mr. BOLAND. No. He is a member of the Environmental Coalition of North Central Texas.

Mr. TRAIN. I would like to check on that right away, if I may.

Mr. BOLAND. Do that. You don't use him to represent the EPA point of view, do you?

Mr. QUARLES. I think that we should submit something for the record to be sure that we are not failing to respond to your question. I can recall that on some occasions we have had concern that there is a very heavy industry analysis of regulations which we proposed, or other actions which we proposed and often no capability among citizen groups to achieve a technical understanding of those.

I think we should submit something for the record as to whether there have been any instances where we have provided some support. I recall some proposals at least, requests we provide some support.

[The information follows:]

PROCUREMENTS FOR WATER POLLUTION CONTROL WORKSHOPS

AUTHORITY

Section 101(e) of the Federal Water Pollution Control Act Amendments of 1972 reads: "Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this Act shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish regulations specifying minimum guidelines for public participation in such processes."

In commenting on this section as it was reported in the original bill the Senate Committee on Public Works said in part:

"Information and education programs should be devised which will acquaint the public with the complexity of the water quality control process and provide them with the technical information. To accomplish this, the Environmental Protection Agency should look to the utilization and support of such devices as community workshops and other assistance activities which were developed and utilized so effectively in the implementation of the Clean Air Act."

AGENCY ACTION

In fiscal years 1974 and 1975, under purchase orders with coalitions of local citizen organizations, EPA conducted information workshops on the water pollution control process similar to those called for in the report. EPA's purchase order to the Environmental Coalition of North Central Texas, which is typical of the orders written with 106 citizen organization coalitions, reads as follows: "this purchase order is for conducting a one (1) day community workshop to

educate local citizens on the National Water Pollution Control Program and to encourage continued public participation in the program as required by Public Law 92–500 in accordance with the attached procurement plan."

The procurement plan for this purchase order follows:

PROCUREMENT PLAN FOR WATER WORKSHOP

1. Title of project: Water Workshop.

2. Estimated period of performance: 3 months from effective date of this contract.

3. Desired award date: April 28, 1974.

4. Project officer: Peter R. Clapper (A–107), Office of Public Affairs, Environmental Protection Agency, Room 329, West Tower, 401 M Street, S.W., Washington, D.C. 20460, 202–755–0720.

5. Contractor: Dr. George W. Crawford, Environmental Coalition of North Central Texas, 9440 Brentgate, Dallas, Tex. 75238.

6. Background: section 101(e) of the Federal Water Pollution Control Act Amendments of 1972 requires that the Environmental Protection Agency and the States encourage and assist public participation in the development, revision, and enforcement of the Nation's water pollution abatement program.

The Report of the Senate Public Works Committee on the 1972 Amendments recommended that workshops be utilized in fulfilling the requirement.

This workshop program, then, is designed to encourage local organizations to become involved in the efforts by EPA, the States and the community in controlling water pollution. In particular, the workshop will show volunteer civic and service organization leaders how the Federal/State program to control water pollution will apply to their local water pollution problem, will describe the opportunities for public involvement in the program, and will encourage the participants to incorporate their own program of involvement and support in their organization annual plans.

7. Purpose of contract: The contractor will organize and conduct a workshop to explain the nature and extent of the local water pollution problem, to describe the particular Federal/State plan for controlling it, and to explain the opportunities for public participation, especially in the areas of State annual planning, planning construction of wastewater treatment plants, and the permit program.

8. Scope of work: The work falls into several general areas:

A. ACKNOWLEDGEMENT

Contractor will acknowledge by letter to project officer acceptance of the contract and will inform him soon as possible of date and location of workshop.

B. FORMATION OF A STEERING COMMITTEE

The contractor will form a steering committee to cooperate in establishing a general strategy for the workshop and for encouraging involvement by leaders of local civic and service organizations. The committee should include all institute trainees from the particular water basin or area as appropriate, and representatives of such diverse organizations as chambers of commerce, churches, labor and service organizations. Their objectives are a large and well motivated audience at a comprehensive workshop and continuing public participation in the abatement program for that area.

C. PUBLICITY

The goal of the program is to encourage every volunteer civic and service organization in the community to embrace water pollution control as part of their regular ongoing activity. Notice of the workshop and a description of what it is all about should be disseminated as widely as possible through such devices as radio and television community bulletin boards, stories in newspapers, mailings, et cetera. EPA will furnish each contractor with copies of television and radio spot announcements as well as newspaper ads. One contractor task will be to obtain public service broadcast time for these announcements and ads by calling on local radio and television stations.

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D. WORKSHOP

The workshop should be no longer than 1 day. It should include at least an overview of the local water pollution program; a description of the Federal/State plan for controlling the problem; and a comprehensive treatment of the opportunities under the law for public participation, especially in the facilities planning process, the State annual planning process, and the permit program. There must be specific discussion of ways in which local organizations, because of their credibility with certain local interests or their particular expertise, can develop a sustained support effort for a particular aspect of the Federal/State control program. The contractor shall notify the project officer of the time and place of the workshop as soon as that information is available.

E. SUMMARY OF STATE PLAN

The contractor will prepare and print a fact sheet giving a brief description of the Federal/State water pollution abatement plan for the community. Copies will be made available at the workshop.

F. FOLLOW UP

Following the workshop, the contractor, together with the steering committee should attempt to establish an ongoing citizen agency for monitoring the progress of the control program. An alternative would be adoption by existing service organization of continuing programs of monitoring some phases of the water pollution abatement effort. Maintaining liaison with appropriate control agencies may service as an effective mechanism.

While these phases are not intended to define a rigid modus operandi, they do reflect the general purpose of the contract.

9. Categories of expenditures: The following items represent categories of direct cost agreed upon by the parties as necessary to complete the work required under this contract. Any expenditures not listed in the following categories of direct cost will be disallowed except as approved by the project officer.

A. All materials and supplies which are used in the performance of the work provided for under this contract, including stamps, office supplies and publications.

B. All services in the following categories are allowable: Duplicating costs; telephone expenses; publicity expenses; rental of appropriate meeting facilities; honoraria for speakers or consultants, not to exceed $100 per day; costs of all direct productive labor which are properly chargeable to the costs of the work provided for under this contract.

C. No reimbursement shall be made for services under this contract until the workshop has been held and the report required under section 10 has been submitted and evaluated.

10. Final report: The contractor shall submit to the project officer two copies of a final report stating the following:

A. Summary of issues brought out at the workshop.

B. List of attendees with addresses and phone numbers.

C. A list of organizations represented and what each plans to do in connection with water programs.

D. A copy of the agenda and any other educational material developed.

E. Album of newspaper clips of any events starting at the beginning of the contract.

F. Any other announcements or documents indicating what is being done. For example, announcements of television programs, free public service time on radio, et cetera.

G. Requests for payment of total contract reimbursement, including purchase order number.

H. Itemized list of expenditures with supporting bills, invoices or vouchers.

The final report is due within 30 days after completion of the workshop.

CONSULTANTS EMPLOYED BY REGIONAL OFFICES DURING FISCAL YEAR 1975

Mr. BOLAND. Place in the record a list of consultants or contractors by region that have been used in fiscal year 1975 to date, and the amounts paid under the contracts or agreements.

Mr. TRAIN. We will do that.

[The information follows:]

Region and name:	Amount [1]
I—Boston: George A. Russell	$2,200.00
II—New York:	
Jeffrey Cohen	624.01
Warran Litsky	588.00
V—Chicago:	
Alfred M. Beeton	750.24
Caldwell B. Meyers	6,700.00
James W. Patterson	500.16
Jerrold H. Zar	330.00
X—Seattle:	
Richard C. Anderson	3,196.80
Richard E. Hatchard	18,102.08
Anthony K. Mason	9,087.75
Total	42,079.04

[1] Paid through Apr. 12, 1975.

INFORMATIONAL WORKSHOPS

Mr. TALCOTT. Are these workshops designed to be promotional of your point of view? Educational in general?

Mr. TRAIN. Informational.

Mr. QUARLES. Under the Water Act there is a specific requirement for us to conduct a program of public participation and to provide for public input into the agency as it carries out the statute. This set of conferences was sponsored by the agency shortly after the Water Act amendments were passed in 1972 in order to achieve a general public understanding of what the law was and what the various programmatic developments under that would be.

The Conservation Foundation carried out a series of meetings around the country which, I think, were generally regarded as very successful and to my knowledge there was no significant criticism from any quarter as to the manner in which they were carried out.

Mr. TRAIN. I might add, environmental groups have often been critical of us for not providing sufficient support for outside public interest activities in this area. We obviously both have very limited resources and it is also a very sensitive field to be in.

Mr. TALCOTT. You don't have an intramural policy of feeding a lot of information to particular people like Nader's Raiders and some of the other consumer agencies or legal aid societies?

Mr. TRAIN. Absolutely not. We provide information rather generally and it is made available on a fairly evenhanded basis. People like Nader's group, I find, get information on activities within the agency before I do, normally.

Mr. TALCOTT. Because they are aggressive and they——

Mr. TRAIN. Often they run a good intelligence system, as far as I can make out. That is not a policy of the agency that is reflected in that fact.

Mr. TALCOTT. Is big business intimidated in many ways from doing that sort of thing?

Mr. TRAIN. No; I find they are equally well informed.

Dr. TALLEY. Mr. Chairman, on the point of identification of the list of outside consultants, do you want to include the scientists and engineers used in R. & D. programs over the course of the year?

Mr. BOLAND. No; I would think not.

LEASED OR OWNED SPACE

How much new rental space or government-owned space will you have in 1976?

Mr. ALM. The total space we have is about 3.8 million square feet, including parking areas. By the end of 1976, we will have approximately 4 million square feet of space.

Mr. BOLAND. How many buildings do you occupy in Washington?

Mr. ALM. Right now we are in 3 buildings, in Washington and two others in the metropolitan area. We are just phasing out. We will have everybody in two buildings very shortly. The Redskin Building will be phased out, and we'll also have our headquarters building.

Mr. BOLAND. The entire headquarters staff will be housed in those buildings?

Mr. ALM. That is right. Waterside Mall and Crystal City.

WASHINGTON OFFICE SPACE

Mr. BOLAND. Provide a breakdown for the record of the location, type of space, square feet and cost. Since you are going to be in two areas that would help.

[The information follows:]

	Headquarters, 401 M. St., SW.	Crystal Mall, Arlington, Va.
Type of space:		
Office	449,265	75,835
Special	33,195	2,229
Parking and storage	228,834	None
Total	711,294	78,064
Cost: GSA user charges	$4,815,000	$561,614

Mr. BOLAND. Where are you moving?

Mr. ALM. We are in the building now. We are just finishing up some additional space in the mall area.

Mr. BOLAND. Are you in any Government-owned space now?

Mr. ALM. No. Not in Washington.

CRYSTAL MALL COSTS

Mr. BOLAND. How much are you paying per square foot in Crystal City?

Mr. ALM. I don't have the exact figures. It is probably about $5 a square foot; $5 to $6 a square foot. I will get the exact figure for the record.

[The information follows:]

Type of space	Rate per square foot	
	Fiscal year 1975	Fiscal year 1976
Office	$6.07	$7.16
Lab and clinic	9.18	12.41
Conference training		8.07

GSA SPACE RENTAL CHARGES

Mr. BOLAND. With respect to Government-owned space for which you are charged by the GSA, will you supply for the record what you pay for the entire agency. How much is proposed in this budget for 1976 for Government-owned space that you paid to GSA?

Mr. ALM. We make all our payments, or most of our payments, to GSA. We lease some special-purpose facilities directly.

Mr. BOLAND. We want the total costs for the Government-owned space that GSA provides or rents for you.

[The information follows:]

	Fiscal year—	
	1975	1976
Federally owned	$9,852,925	$12,768,100
GSA leased	1,942,942	1,519,300
Total, fiscal year cost	11,795,867	14,287,400

ENERGY

Mr. BOLAND. We will turn to "Energy" and place pages E–1 through E–19 in the record.

[The pages follow:]

Energy

Research and Development

	1975	1976	Increase or Decrease
Budget Authority			
Processes and Effects.....	$53,000,000	$47,000,000	-$6,000,000
Control Technology	81,000,000	65,000,000	-16,000,000
Total.....	134,000,000	112,000,000	-22,000,000
End-of-Year Employment			
Processes and Effects.....	...	22	+22
Control Technology	...	18	+18
Total.....	...	40	+40

Purpose

The purpose of the EPA energy-related research and development program is the development of a sound technical and scientific basis for ensuring (1) adequate protection of human health, welfare, ecosystem, and social goals; (2) environmental protection necessary to facilitate the use of energy supplies, with particular emphasis on domestic fuels; (3) implementation of energy system initiatives without delays caused by inadequate and insufficient environmental impact data; (4) development of appropriate cost-effective control technologies for emerging energy systems; and (5) assessment of the environmental implications of energy conservation measures in order to maximize the energy savings and minimize the associated adverse impacts.

Energy Research and Development

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Energy Research and Development			
Processes and Effects.....	$53,000.0	$47,000.0	-$6,000.0
Control Technology..	81,000.0	65,000.0	-16,000.0
Total...	134,000.0	112,000.0	-22,000.0
End-of-Year Employment			
Energy Research and Development			
Processes and Effects.....	...	22	+22
Control Technology..	...	18	+18
Total...	...	40	+40

Energy

Research and Development

Processes and Effects

	1975	1976	Change
Processes and effects.....	$53,000,000	$47,000,000	-$6,000,000

The processes and effects program is designed to determine the environmental effects associated with energy extraction, transmission, conversion, and use so that measures can be taken in a timely manner to protect human health and welfare, the ecosystem, and social goals. Identification of the pollutants released by energy related industrial operations and determination of their impact on the human and natural environment will define the environmental control requirements for the polluting operations. The program will extend and strengthen the scientific basis of the Agency's regulatory policies and programs.

Energy related environmental processes and effects R&D is composed of four general subactivities: (1) health effects; (2) freshwater, marine, and atomospheric/terrestrial ecological processes and effects; (3) pollutant identification, measurement, and monitoring; and (4) policy and implementation research.

1975 Program

The health effects program is designed to identify and assess the health implications of various options for producing energy, including the processes of fuel extraction, conversion, and combustion, as well as energy conservation.

The watershed ecological processes and effects program is designed to provide ecological information so that environmentally sound decisions can be made relative to various energy development options. Specific pollutant oriented studies and broader energy technology oriented studies are designed to determine the total impact on the freshwater ecosystem of various energy development activities. Objectives include determining the transport and fate, in fresh surface waters and groundwaters, and the effects on

freshwater ecosystems, of organic and inorganic pollutants, dissolved and suspended solids, complex effluents, and thermal discharges from energy related activities. The major energy technologies to be addressed are limited to oil shale and coal development and extraction, and coal gasification and liquefaction.

The marine ecological processes and effects program is designed to establish the background levels of relevant contaminants in both organisms and habitats. Funding levels will limit study to one major geographic area offshore of the eastern United States. In this area, deepwater ports and oil rigs will be located in adjacent sites, allowing for streamlined sampling. The program is designed to determine the effects on marine organisms and ecosystems of electrical power plants, petroleum extraction and conversion operations, and construction of deepwater ports.

The atmospheric/terrestrial processes and effects program is designed to determine the transport and effects of pollutants generated from various energy activities. Technologies to be considered are limited to oil shale, coal combustion, coal extraction, and coal gasification and liquefaction. The major emphasis in the area of air transport research will be to determine the chemical/physical processes associated with the conversion of sulfur and nitrogen oxides to sulphates and nitrates, and photochemical oxidant transport. Work in the terrestrial area will focus on the ecological impact of oxidants and toxic metals. The current program in the air/terrestrial area is oriented toward the study of air transport and transformation of energy derived pollutants and the transport and effects of these pollutants in terrestrial ecosystems.

The pollutant identification, measuring, and monitoring program in 1975 will (1) accelerate the development of new and improved sampling and analytical methods and instrumentation for measuring pollutants and hazardous substances associated with energy related developments, including methods and instruments for air, water, and solid waste, and (2) identify, measure, and monitor those pollutants associated with development of the national energy research and development plan.

The policy and implementation research program will develop comprehensive environmental protection standards for energy production activities, attempting to balance the environmental and economic costs. The comprehensive evaluation of environmental,

economic, and social consequences of energy alternatives is used as a basis for EPA policy formulation.

1975 Accomplishments

Health Effects

- Commence studies to determine health implications of fossil fuel extraction and conversion, including studies on air and water pollution effects resulting from coal liquefaction and gasification activities;

- Conduct epidemiological and toxicological studies to expand existing knowledge on the spectrum of response associated with exposure to pollutants produced by fossil and waste fuel combustion;

- Initiate further studies to assess potential health hazards associated with mobile source emissions, including studies on selected fuels, fuel additives, advanced engine designs, and emission control systems;

- Conduct studies to identify the carcinogenic potential of air and water contaminants resulting from energy production operations;

- Develop screening systems to determine potential damage repair and protection mechanisms in biological systems; and

- Conduct studies to determine health hazards associated with deteriorated air quality inside buildings resulting from energy conserving equipment and structural design.

Watershed Ecological Effects

- Determine the types and amounts of organic and inorganic pollutants, metals, complex effluents, dissolved and suspended solids and dissolved gases which may potentially impact the freshwater environment due to increases in coal production, oil shale development, oil and gas extraction, and coal gasification and liquefaction;

- Review existing literature on freshwater ecosystem response to anticipated stresses caused by increases in coal production, oil shale development, oil and gas extraction, and coal gasification and liquefaction;

- Identify areas for development of additional offshore oil drilling activities, construction of oil refineries, power plants and supertanker ports in the coastal zone;

- Develop detailed work plans for evaluation of environmental impact at selected zones which will experience energy development; and

- Initiate surveys at selected sites to establish ambient concentrations of potential pollutants and augment historical data to provide insight to the variability of environmental conditions.

Atmospheric/Terrestrial Ecological Effects

- Provide scientific reports summarizing the current scientific knowledge for predicting chemicals/ physical generation, transport, and removal of sulfates and nitrates from stationary source plumes in areas of both simple and complex terrain;

- Preliminary reports on atmospheric effects including visibility reduction, haze and radiation balance due to airborne aerosols generated by energy related activities;

- Initiate field program to determine mass balances of pollutants contained within the air envelope encompassing fuel conversion systems such as coal liquefaction and gasification;

- Document air pollution climatologies for the United States and include major atmospheric parameters that descrive dilution and depletion of air pollutants;

- Initiate studies to describe pollutant removal from the atmosphere by dry deposition and washout/ rainout;

- Determine the potential consequences to weather and climate due to the emissions of pollutants, heat, and moisture from energy related activities;

- Develop predictive capability to forecast air pollution potential in advance of adverse conditions;

- Determine the effect of energy related air pollutants on important materials; and

- Determine biological, physical, and chemical pathways and transfer mechanisms of energy derived pollutants through soils, economic crops and animals.

Pollutant Identification, Measuring, and Monitoring

- Development of a compact, portable x-ray fluorescence instrument to monitor sulfur in particulate emissions from power plants;

- Development of particulate sampling train for determining three-size fractions in particulate emissions from power plants;

- Development of advanced power plant emissions sampling system; and

- Comparison of instrumental methods for determining the chemical forms of nitrogen and sulfur compounds in ambient particulate from fossil fueled power plants.

Policy and Implementation Research

- Develop method for evaluation of environmental and health effects of alternative fuel cycles, especially coal and nuclear fission, and the application of this work to alternative energy sources;

- Develop method for preliminary assessment of social and economic consequences of alternative fuel cycles and related pollution control requirements with specific attention to energy costs and health benefits of alternate energy sources. Particular attention will also be paid to energy conservation potentials and their economic and social consequences;

- Assessment of secondary SO_2 standards against the requirements for clean air and alternative energy sources; and

- Assessment of long-range requirements for thermal pollution control and the alternatives available related to energy and other resource costs.

1976 Plan

The health effects plan for 1976 continues needed research on the health implications of new and advanced technologies and conservation measures. In addition, fossil fuel and waste combustion technologies will require new effects assessment and information. Specifically, the plan includes:

- Expansion and acceleration of health effects studies on fossil and waste fuel combustion, extraction, and conversion;

- Continuation of studies to obtain health intelligence on mobile source emissions, including those from advanced engine designs and studies on emission control technology;

- Initiate studies to determine health implications of new and advanced energy technologies, including solar, geothermal, and nuclear processes;

- Conduct of epidemiological and toxicological studies emphasizing long-term, low level pollutant exposures to determine potential teratogenic, mutagenic, and carcinogenic effects; and

- Expansion and acceleration of health effects studies related to energy conserving methods and procedures in buildings.

The 1976 ecological processes and effects program incorporates specific pollutant oriented studies with broader energy technology oriented studies designed to determine the total ecological effect of various energy development options. The program is ecosystem oriented and can be subdivided into watershed ecosystem, atmospheric/terrestrial and marine problem areas. In the 1976 watershed ecosystem program, energy technologies to be addressed are

limited to oil shale and coal development and extraction and coal gasification and liquefaction. Specific plans include:

- Determine acute toxicity to freshwater organisms for most critical organic and inorganic pollutants, metals, complex effluents, dissolved and suspended solids and dissolved gases derived from increases in coal production oil shale development, oil and gas extraction and coal gasification and liquefaction;

- Determine primary transport mechanisms and pathways in fresh surface and groundwaters of organic and inorganic pollutants, metals, and dissolved and suspended solids derived from increased coal production; and

- Begin baseline evaluation of aquatic ecosystems associated with western coal development and oil shale development.

The 1976 marine ecological processes and effects program is limited to a study of a single geographical area. Baseline data will be developed in cooperation with other agencies to study the impact of deepwater ports, floating nuclear power plants, and offshore oil drilling. Current plans are designed specifically to utilize other agencies' ships already engaged in support sampling to establish a thorough baseline community assessment and background levels of relevant contaminants in organisms and habitats. Specific plans include:

- Initiation of a time-series research program relative to ecosystem variability, transport processes (atmospheric and water), pollutant fluxes, pollutant distribution, concentration, accumulation, and dispersion;

- Development from time-series data, of preliminary ecosystem and hydrodynamic models related to transport diffusion processes; and

- Evaluation of first phase research results on activity in petroleum hydrocarbons, trace metals, thermal effects, and power plant effluents, with regard to physical, chemical, and biological data for applicability to model development.

The 1976 atmospheric terrestrial ecological processes and effects program is designed to determine the transport and effects of pollutants produced from the various energy technology options. Energy technologies to be addressed in the 1976 program are limited to oil shale, coal combustion, coal development and extraction, and coal gasification and liquefaction. The major emphasis in the area of air transport research will be to determine the chemical/physical processes associated with the conversion of sulfur and nitrogen oxides to sulfates and nitrates and photochemical oxidant transport. The terrestrial area will focus on ecological impact from oxidants and toxic metals. Specific plans are to:

- Develop empirical methods for predicting stationary source plume dispersion in simple and complex terrain, emphasizing transformation and transport and removal of sulfates and nitrates;

- Develop methods relating atmospheric visibility reduction to the chemical/physical properties of fine particulates;

- Quantify the air pollutant mass balance effects of coal liquefaction and gasification processes and identify the important atmospheric processes;

- Develop site study program for deposition and scavenging measurements in vicinity of various types of sources including tall power plant stacks and smelters;

- Develop atmospheric forecasting capability in real time for single emission source; and

- Relate environmental parameters such as conditions of exposure, duration of pollutants, water vapor, temperature, wind, and sunlight to material loss.

The 1976 program in pollutant identification, measuring, and monitoring will apply advances in instrumentation sampling systems and methodology to high priority energy technologies such as solid waste and coal burning plants and oil shale operations. Additional field and remote monitoring instrumentation will be developed to parallel emerging technologies for use in 1976 and subsequent years. Both remote sensing and ground truth monitoring will be used because two approaches

to monitoring the energy development program are needed: (1) an overview of regional and other large geographic areas and (2) specific site monitoring.

The 1976 program in policy and implementation research will continue and extend analyses and assessments initiated in 1975. Specifically, the plan calls for:

- Refinement and application of methods for comprehensive evaluation of environmental, economic and social consequences of energy alternatives to assist the Agency in policy formulation;

- Development of specific suggestions and documentation to support proposals for comprehensive energy production standards. Such standards will be based on considerations of multimedia, multipollutant and multiple pathway effects. They will include consideration of the economic and societal costs, and risks and benefits of alternatives. They will also consider the long-term requirements for environmental protection as determined by pollutant persistence and prospective health and other hazards;

- Analyses of environmental, social, and economic consequences of energy conservation alternatives with a view to identification of major changes in life styles, land uses, and transportation patterns that may be involved;

- Identification of useful and feasible institutional improvements for the effective and economical implementation of energy/environmental objectives;

- Identification and analysis of central policy issues for the longer term adaptation of energy systems to the requirements of environmental quality including radioactive waste management, strip mine reclamation, thermal, and other pollution control implementation problems; and

- Analyses of environmental consequences of changes in the mix of economic activity brought about by energy alternatives.

Purpose of Decrease

Although the 1976 processes and effects program envisions a level of effort comparable to the 1975 program, it has been determined that the effectiveness of the total program would be enhanced if certain research projects being conducted by the Energy Research and Development Administration (ERDA), supported by the interagency transfer of funds from EPA, were directly appropriated to that agency for 1976. The projects, totaling $6 million, were initated during 1975 and will continue the same programmatic activities in 1976 under control of ERDA. Coordination between the EPA and ERDA efforts will continue. The reduction of $6 million in the processes and effects program reflects the impact of this transfer of project jurisdiction.

The additional 22 positions requested will strengthen direction of the program and help provide improved control over the major portion of the program executed via contract and transfer to other agencies.

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Energy

Research and Development

Control Technology

	1975	1976	Change
Control technology..	$81,000,000	$65,000,000	-$16,000,000

The environmental control technology program is designed to identify, develop, and demonstrate cost-effective control techniques for energy extraction, transmission, conversion, and use. The program necessarily involves assessment of the pollution potential of source effluent streams and the technological processes producing those pollutants, as well as research and development on control devices and process modifications to reduce the impacts of pollutants on the environment. The objective of the program is to provide adequate environmental protection as the nation moves toward expanding use of domestic fuels.

The environmental control technology research and development program is subdivided into four general subactivities: (1) extraction and beneficiation; (2) fossil fuel combustion; (3) synthetic fuels; and (4) advanced systems and conservation.

1975 Plan

Measures will be developed in the extraction and beneficiation program to reduce the environmental impacts of extracting coal, oil shale, oil, and natural gas, to remove potential pollutants from these fuels and to reuse or properly dispose of wastes resulting from extraction and processing activities. EPA proposes to significantly expand its environmental assessment with particular emphasis on western surface coal and oil shale mining. The program includes initiation of programs to revegetate mined lands in order to reduce the impacts on air and water quality, to dewater aquifers in order to eliminate mine acid discharges, to improve oil spill protection and cleanup measures, and to stabilize spent oil shale, and the construction of a chemical coal cleaning pilot plant and other process evaluation and development facilities for the study of problems associated with the removal of potential pollutants from fossil fuels. Portions of the program will involve support

of and coordination with other agencies such as the U.S. Bureau of Mines, the U.S. Department of Agriculture, and the Appalachian Regional Commission.

Processes for controlling air emissions of sulfur oxides, nitrogen oxides, particulates and hazardous materials from fossil fuels combustion sources will be developed in the fossil fuel combustion program. Demonstration of current generation of stack gas scrubbers (flue gas desulfurization systems) will be completed. Demonstration programs for two second generation stack gas cleaning processes will be initiated. Pilot scale testing and evaluation of several promising flue gas desulfurization (FGD) technologies will be performed. Special attention will be placed on ensuring that the end products of FGD systems can either be disposed of in an environmentally sound manner or sold as a usable product. Environmental assessments will be performed to determine the impact of fine particulate and hazardous effluents from fossil fuel combustion sources and, where appropriate, technology will be developed to control these emissions. Development of technology for NO_x control will be accelerated.

Additionally, the environmental impact of fluidized bed combustion (FBC) processes, which offer promise of efficient coal use with minimal environmental problems, will be evaluated, and selected fluidized bed assessment programs will be performed as part of the National Fluidized Bed Combustion Program being evolved with EPA, the Office of Coal Research, Federal Energy Administration, Department of Housing and Urban Development, National Science Foundation, and Electric Power Research Institute as the active participants. The development work will include continued testing of EPA's FBC "Miniplant", and design of a 30 megawatt flexible test facility for use in environmental assessment of future FBC systems.

The synthetic fuels program is directed toward two major objectives: the assessment of the potential environmental impact of synthetic fuel processing plants and the development of control technology to minimize adverse environmental effects. The environmental assessment activity involves initiation of an effort to characterize feed stock materials with concurrent studies assessing the impact of shale oil recovery, coal liquefaction, and high and low BTU coal gasification processes. In the control technology development area, several programs will be continued and others initiated to enable air, solid waste, and water pollution control technology to progress concurrently with fuel processing technology under development by the Office of Coal Research

and the Bureau of Mines. An important element in the control technology area will be the initiation of the design and construction efforts for a small in-house flexible gasifier test facility to be used for control technology evaluation.

Methods to control thermal effluents and to use solid wastes as fuels in an environmentally acceptable manner are the major elements of the advanced systems and energy conservation program. These elements will support the Agency's thermal and solid waste management regulatory responsibilities by providing hardware, systems, and parametric environmental data for regulatory and technical assistance purposes. EPA is also significantly expanding environmental assessment and environmental technology assessment programs with respect to waste-heat recovery, energy conserving industrial process changes, the uranium fuel cycle, and solar and geothermal sources. Extensive coordination between EPA, FEA, ERDA, NSF, and other agencies is planned.

1975 Accomplishments

Extraction and Beneficiation

- Publish a comprehensive manual of practice for environmental management of surface mining operations in both the eastern and western United States;

- Publish a manual of practice for the surface disposal of coal refuse;

- Complete the extension of a method for predicting the acid-forming potential of overburden to all areas of the eastern United States and publish a technical instructional manual on this method;

- Complete an analysis of the feasibility and environmental pay-off of "down-dip" mining of deep coal seams, resulting in planned flooding of underground mines upon abandonment and reduction or elimination of acid discharge;

- Complete an evaluation of the peformance of existing types of sediment control basins, including those commonly specified by State regulations;

- Complete the construction and shakedown of a facility for the full-scale evaluation of the performance of oil spill control devices;

- Demonstrate a highly efficient oil/water separator, based upon chemical flocculation methods for use on offshore oil production facilities;

- Complete an initial evaluation of the effectiveness of existing and projected methods for stabilizing spent oil shale (final evaluation in 1978);

- Initiation of the construction of the Meyers process coal cleaning pilot plant; and

- Completion of a physical coal cleaning design manual.

Fossil Fuel Combustion

- Initiate two demonstration programs for second generation FGD processes--one will be an advanced throw-away (sludge producing) system while the other will produce saleable elemental sulfur as a by-product;

- Complete the full-scale demonstration test programs for two current generation FGD processes;

- Perform an advanced test program on the lime/limestone prototype system to enhance process reliability, produce acceptable sludge products, and minimize costs;

- Accelerate and continue development of technology for control of NO_x and fine particulate effluents from combustion sources;

- Design a flexible fluidized bed test facility for environmental and performance evaluation; and

- Initiate an environmental assessment and systems evaluation of the use of low-sulfur western coal in industrial-size boilers.

Synthetic Fuels

- Initiate major environmental assessment studies for shale oil recovery, coal liquefaction. low-BTU and high-BTU coal gasification processes;

- Initiate construction of flexible test facility for pollutant control technology development and evaluation for coal gasifiers; and

- Continue development work aiming toward cleanup at high temperature of low-BTU gasifier effluents.

Advanced Systems and Conservation

- Ecological and health parameters of waste heat discharge will be assessed and linked to engineering criteria for discharge methods;

- Alternatives for the recovery of waste heat in an environmentally sound manner will be evaluated from technical, regulatory, and economic perspectives;

- Completion of optimization-of-mix studies concerning the use of animal and crop (agricultural) wastes as sources for noncombustion reclamation of energy values;

- Completion of more comprehensive process evaluations and environmental assessment testing programs for refuse processing and combustion (St. Louis, Missouri; Columbus, Ohio);

- An initial evaluation of the environmental aspects and control technology needs (emphasis on air impacts) of avaiable biological, chemical, and pyrolytic systems for converting solid wastes to fuels;

- Environmental and technical assessments of energy-conservative industrial process modifications covering nine major energy consuming industries, and the identification of best options for development activities in 1976;

- Completion of systematic environmental assessments of the uranium use cycle, with emphasis on mining and water pollution problems; and

- Completion of initial environmental assessments of methods for using geothermal energy, with emphasis on pollution of ground and surface water.

1976 Plan

The 1976 program in extraction and beneficiation will complete evaluations of problems and technology for dealing with western acid mine drainage, secondary and tertiary oil and gas recovery, coal storage facilities, fine sediment control from probable oil shale operations, and steep slope surface coal mining. Demonstrations of several of the leading technologies for controlling acid mine drainage will be completed and comprehensive guidelines will be published in several areas, including models for predicting potential pollution problems. The much needed data base on coal cleaning, completed in 1975, will be maintained and expanded with additional environmental data to keep pace with the broadening Federal energy R&D program and the growing national energy requirements. Efforts attacking problems of reuse and disposal of wastes from fossil fuel cleaning will be expanded in 1976 with the goal of developing significant near-term results early in the effort.

Efforts for controlling emissions of sulfur oxides, nitrogen oxides, particulates and hazardous materials from fossil fuel combustion sources will be continued in the 1976 fossil fuel combustion program. Full-scale demonstration of two FGD processes initiated in 1975 will be continued. An additional second generation FGD process, producing sulfur as the end-product, may be initiated. A comprehensive and intensive technology transfer program will be initiated to assure application of FGD expertise generated by EPA to the commercial sector. Control technology efforts will be accelerated in the fine particulate and hazardous effluents control technology areas. NO_x technology control efforts will be continued. For the FBC program, efforts will be accelerated in the Miniplant evaluation program; the construction, operation, and evaluation of the test facility; and in the evaluation of the use of low sulfur western coal in industrial-size boilers.

The 1976 synthetic fuel program will allow for expansion of the environmental assessment of the impact of the various synthetic fuel processing plants for most of the important conversion processes presently under development. The flexible test facility for gasifier control technology evaluation would be completed, and the test program initiated. Development effort would continue in the control technology area, enabling pollution control technology to proceed concurrently with fuel processing technology being developed by ERDA.

In the 1976 advanced systems and conservation program, emphasis will shift toward development of thermal waste control and solid waste reuse technology methodology and environmental assessment activities in conjunction with the expanding Federal R&D program in energy conservation, nuclear energy, and other advanced energy systems. Specifically:

- Thermal control and reuse methods research will increase significantly as initial assessments of the ecological and health parameters of discharge and reuse are completed and these assessments are linked with engineering and economic evaluations;

- Research on the direct combustion of solid wastes as supplementary fuels will expand to include oil-fired boilers and other types of coal-fired boilers such as fluidized bed combustors. Research on non-combustive methods (fermentation, chemical, and pyrolytic) for converting solid wastes to usable energy will be expanded;

- Development of industrial process modifications to effect environmental controls and energy conservation will be initiated on the basis of detailed environmental assessments of major energy using industries, and additional assessments will be undertaken; and

- Detailed environmental assessments and development or control methods for energy-conservative industrial process changes will be performed as indicated by preliminary phase work completed in 1975.

Purpose of Decrease

In most areas, the 1976 program will maintain a level of effort comparable to that in 1975. The bulk ($11,000,000) of the decrease reflects the fact that the two second generation stack gas cleaning demonstration plants were fully funded with 1975 monies, with only modest operational expenses required to fully support those projects in 1976.

A second area of reduction ($2,000,000) reflects a phasing down of activities in eastern surface and underground mining, although efforts in western coal surface mining and oil shale mining will be maintained.

The third area of reduction ($3 million) is in the advanced systems and conservation program. In this area, 1975 monies were used to fund multiyear projects, with only reduced operational expenses required to fully support those projects in 1976.

The additional 18 positions requested will serve to strengthen management of the program and to provide increased control of the major portion of the effort executed via contract and transfer to other agencies.

ENERGY RESEARCH AND DEVELOPMENT

Mr. BOLAND. On page E–1 you are proposing a decrease of $22 million in fiscal year 1976 for research and development. At the same time you show an increase of 40 people in this area. Obviously, this must result from a different way of counting these people because you show no people under the program in 1975. What is the story here? What is the comparative total of people in this area in 1975?

Dr. TALLEY. During 1975, as we built up the energy program we were forced to detail people from the base program over to the energy program in order to accommodate the funds. In 1976, by dint of reprograming, cutting down on administrative staff and the like, we are going to be generating 40 positions for this program.

Mr. TRAIN. This is another example, I think, of the efforts of the Agency to reprogram as priorities really shift. That $134 million which shows in 1975 was substantially all new. It was a new program for the Agency, yet we were given absolutely no additional people for the administration and management of that program. As it moves into the second year, it is being reduced to $112 million. We have now 40 people but they have been taken from existing programs within the Agency.

Mr. BOLAND. You were using people in this activity in 1975?

Dr. TALLEY. Yes, sir.

Mr. BOLAND. How many would you be using?

Dr. TALLEY. There would be really no way to determine this since they were detailed to the energy program and might work a week and then return to the other programs. I should mention in 1974 we did have $17 million for energy related activities but the $134 million in 1975 is additional——

Mr. BOLAND. Last year you requested a total of $191 million for energy research and development. Is that correct?

Dr. TALLEY. Yes, sir.

Mr. BOLAND. You received $54 million in the special Energy Act and $80 million in the regular bill for a total of $134 million. Correct?

Dr. TALLEY. Yes, sir.

TRANSFER TO ERDA

Mr. BOLAND. How much of that $134 million and what part of the programs were transferred to ERDA?

Dr. TALLEY. Do you mean pass-through funds where the money is transferred to ERDA or are you referring to transfers when ERDA was created?

Mr. BOLAND. The dollars that were actually transferred to ERDA. What programs were transferred to ERDA?

Dr. TALLEY. None of these funds have as yet been transferred out of the energy appropriation.

Mr. ALM. One small program, the advanced automotive power system was transferred from the research and development appropriation; $5,030,000 and 17 people were transferred. However, we were allowed to keep the positions. Also, we transferred $9,915,000 of prior year unobligated balances.

Mr. BOLAND. Why can't these programs be transferred to ERDA?

Dr. TALLEY. The energy environmental program is an example of excellent interagency cooperation with a great deal of planning in advance. Almost a year ago two committees were formed by OMB and the Council on Environmental Quality to plan a coordinated environmental program to make certain that as new energy sources were developed there would be proper consideration to the environment, rather than leaving the environment as an afterthought.

Mr. BOLAND. Is it correct to say the energy research programs EPA retained are health related?

Dr. TALLEY. No, sir. One of the interesting things is that, as ERDA is building up their known capability, they are using the results of the research that EPA has been conducting for several years in nonnuclear energy development, such as fluidized reactors for the combustion of coal.

HEALTH HAZARDS FROM ENERGY PRODUCTION

Mr. BOLAND. On page E–4, you indicate that you have conducted studies identifying the carcinogenic potential of air and water contaminants resulting from energy production operations. Give us an example from this study of a health hazard you have found.

Dr. TALLEY. One that springs to mind is in the retorting of oil shale. It is possible to complete organic rings into compounds which are known to be toxic and perhaps carcinogenic. If ERDA were to go forward with the development of synthetic fuels from oil shale without having this pointed out to them, without proper control, temperatures and the flow of oxygen, we would be producing a fuel which would be a definite hazard to human health. It would enter the liquid petroleum stream and possibly result in exposures to our citizens.

JOINT STUDIES WITH CEQ

Mr. BOLAND. Are you doing any research under contract for the Council on Environmental Quality? If you do, indicate that for us.

Dr. TALLEY. We contribute to joint studies but the total sum of money that CEQ has for research is about $600,000. I think if they would ask us to do something, we would find the wherewithal to do something.

Mr. TRAIN. We do do joint studies, jointly funded studies with CEQ because with the small amount of research money they intended to undertake interagency research by bringing together resources from other agencies, and sometimes this will be three or four in connection with some one given program. We have contributed to and supported that effort.

Mr. ALM. That has been up to sometimes 10 different joint projects.

Mr. BOLAND. You are not doing research for CEQ under contract?

Mr. TRAIN. That is correct.

STACK GAS CLEANING DEMONSTRATION PLANTS

Mr. BOLAND. On page E–18, what is the purpose of the decrease? The indication is a part of the decrease for energy R. & D. is attrib-

utable to the completion of two second-generation stack gas-cleaning demonstration plants. Where would those plants be?

Mr. GAGE. Mr. Chairman, the sites for those plants have not been selected yet. We have proceeded through a screening process and have now qualified three or four potential contractors/utilities to prepare bids, including the final site of the plant. After selecting the combined effort of a vendor and a utility, the two plants will be then located. The commitment of the moneys is proceeding apace and we expect within the next several months to have those two contracts awarded. They will be fully funded in the first year to provide for all of the capital expenses and part of the operational expenses.

Mr. BOLAND. I presume they will be the last word in air pollution control?

Mr. GAGE. We hope so. We do think that they will contribute very substantially to the solution of one of the problems that have been mentioned in the last few days of the hearings; namely, the sludge disposal problem. In one of the scrubber processes elemental sulfur is produced as opposed to the sludge which has been somewhat difficult to treat in order to put it into a disposable form. In the other case, the scrubber will produce an acceptable sludge which can be more readily disposed of in traditional land disposal.

Mr. BOLAND. I presume this R. & D. technology will be transferred to thousands of smokestacks and plants after you find out?

Mr. GAGE. We will be involving the utility industry in this.

Mr. BOLAND. This demonstration is for the purpose of determining whether or not it is an economical, viable procedure, I suppose; is that correct?

Mr. GAGE. Both economically and environmentally more acceptable. We are working closely with the Electric Power Research Institute for the purpose of providing ease of technology transfer. Both of these processes do show potential for decreased sulfur oxide control costs.

EPA AND ERDA RELATIONSHIP

Mr. TRAIN. Could I interject one point? This may go back to a somewhat earlier question. Steve, bear me out on this a bit if necessary. As between EPA and ERDA in the field of control technology R. & D. this was a subject that had considerable attention by the Congress by the time of the establishment of ERDA. The Government Operations Committees gave a good deal of attention to this particular question as to what if any of the EPA R. & D. effort should be transferred to ERDA.

As has been pointed out to you, the AAPS program was transferred but in the area of control technology the conclusion was reached to leave it with EPA. The development of the technology which represents an add-on, a control technology put on the stack to control or otherwise abate emissions, whereas ERDA would undertake directly those energy R. & D. efforts which represented the development of the combustion system itself or the new energy system, whatever it might be. I do not know that that is a helpful distinction but these two obviously are closely related and they do require very close coordination between the two agencies.

We are also required by the terms of the legislation establishing ERDA to maintain a technology assessment capability, as Mr. Alm just pointed out, so that we are in a position even with respect to technology we are not directly involved in developing to maintain an assessment capability as to its environmental efficacy.

Agency and Regional Management

Mr. Boland. We will turn to "Agency and regional management" and insert pages ARM–1 through 15 in the record.

[The pages follow:]

Agency and Regional Management

	1975	1976	Increase or Decrease
Budget Authority			
Agency Management and Support....	$49,262,700	$56,034,900	+$6,772,200
Regional Management and Support.....	11,206,800	11,323,600	+ 116,800
Total.....	60,469,500	67,358,500	+ 6,889,000
End-of-Year Employment			
Agency Management and Support....	1,332	1,346	+14
Regional Management and Support.....	491	491	...
Total.....	1,823	1,837	+14

Overview and Strategy

This program area covers Agencywide policy direction and administration as it is carried out at both headquarters and the regional offices. It also covers certain common services and functions which can be most effectively managed on an Agencywide basis. A meaningful way to characterize these activities is in terms of those which involve management as opposed to those which are of a supportive nature.

Management activities are personnel related in that they include the salaries and expenses of the Administrator and his immediate staff and staff offices, the 10 Regional Administrators and their staffs, as well as the various organizational units which provide centralized services. These include program planning and evaluation, budgeting and financial management, personnel services, contracts and grants administration, audit, public information, legislative liaison, and other activities required for the effective management of all Agency programs. The full cost

of these managerial activities is charged to the Agency and Regional Management appropriation.

Support activities do not involve personnel and include a variety of costs associated with items such as office services, rental of space, communications, housekeeping services, and ADP support. These Agencywide support activities are general in nature and are controlled centrally, and costs cannot readily be associated with a specific organization or program; however, it is important that these costs in some way be associated with the programs which benefit from them. To accomplish this, the total costs are allocated on a prorata basis to the various appropriations where they are included under the budget activity Program Management and Support. The Agency and Regional Management appropriation includes only the prorata share of these support costs which can be allocated to Agencywide management activities.

The scope of these Agencywide management activities is, of course, dictated by the direction and requirements of the programs which they serve as well as by the budgetary constraints under which these estimates have been developed. Consistent with this, the assumption has been made that the program increases reflected elsewhere in these estimates can be accomplished without a corresponding increase in Agencywide management personnel and, in fact, plans call for a decrease of 35 positions in the headquarters management by the end of 1976. However, it should be recognized that there are increased costs associated with on-going support activities which can be characterized as being largely mandatory in nature. It should also be understood that there are certain functions covered by this account (audit and environmental impact statement preparation) which are tied directly to other Agency strategies and as a result require significant resource increases.

Summary of Increases and Decreases

1975 Agency and Regional Management.....	$60,469,500
Agency Management and Support.....	6,772,200
To provide for increased costs associated with various supporting activities such as ADP services, rent and utilities, environmental impact statement preparation, additional audit coverage, and the full-year cost of the October 1974 pay raise.	
Regional Management and Support.....	116,800
To provide for the full-year cost of the October 1974 pay raise.	
1976 Agency and Regional Management Request...	$67,358,500

Agency and Regional Management

Agency Management and Support

	1975	1976	Increase or Decrease
Budget Authority			
Agency Management...	$39,554,300	$44,264,000	+$4,709,700
Agency Support.	9,708,400	11,770,900	+ 2,062,500
Total.....	49,262,700	56,034,900	+ 6,772,200
End-of-Year Employment			
Agency Management...	1,332	1,346	+14
Agency Support.	...	...	...
Total.....	1,332	1,346	+14

Purpose

The Agency management and support activity covers the top level policy direction of Agency programs provided by the Administrator and his immediate staff and staff offices, the Agencywide management functions performed by the Office of Planning and Management, and the centralized administrative services provided to all operations located in Washington, D.C.; Research Triangle Park, North Carolina; and Cincinnati, Ohio. It also provides for certain support costs which are budgeted on an Agencywide basis.

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Agency and Regional Management

Agency Management and Support

Agency Management

	1975	1976	Change
Agency management.....	$39,554,300	$44,264,000	+$4,709,700

The Agency management subactivity provides for staffing and related expenses of the immediate office of the Administrator and those staff offices which report directly to the Administrator, as well as for those of the Office of Planning and Management. Preparation of environmental impact statements (EIS's), covering projects or actions sponsored by EPA, is also included in this subactivity.

The Office of the Administrator is responsible for establishing Agency policies and for providing the overall direction needed to guide the Agency's activities. The staff offices carry out functions which are closely allied with this overall direction. This includes legislative services and congressional liaison, public information, management of the Agency's equal opportunity programs, direction and coordination of international activities, and the coordination of EPA programs with those of other Federal agencies. This latter function includes coordination of EPA's responsibilities under the National Environmental Policy Act and implementation of Executive Orders dealing with pollution control measures required of other Federal agencies. The resources associated with these offices are as follows:

	1975		1976	
	Pos.	Amount	Pos.	Amount
Office of the Administrator....	58	2,057,400	58	2,075,100
Office of Legislation.....	40	924,800	40	936,900
Office of Public Affairs.....	68	2,937,200	68	2,958,100
Office of International Affairs	24	781,600	24	788,900
Office of Civil Rights.....	17	547,300	17	550,300

	1975		1976	
	Pos.	Amount	Pos.	Amount
Office of Federal Activities.....	30	762,400	30	771,500
EIS preparation*.	50	5,015,800	64	8,630,900
Total.....	287	13,026,500	301	16,711,700

* Resources for EIS preparation will be allocated to both headquarters and the regional offices; they are shown here for purposes of comparability with the 1975 budget.

The Office of Planning and Management performs the Agencywide management functions involved in planning and implementing EPA programs and provides the administrative services required by headquarters and the two major field centers located at Research Triangle Park, North Carolina, and Cincinnati, Ohio. The major organizational components within the Office of Planning and Management include the Office of Administration, which provides services in the areas of general management and organization, grants and contracts administration, personnel, data systems management, facilities and support services, and security and inspections; the Office of Resources Management, which is concerned with program analysis, budgeting, and accounting functions; the Office of Planning and Evaluation, which provides a central independent focus for economic analysis, program evaluations, and the coordination of Agency standards, regulations, and guidelines; the Office of Audit, which is responsible for the Agency's comprehensive audit program; and the Office of Education and Manpower Planning, which develops coordinated plans and evaluates the effectiveness of EPA's various manpower training programs. The resources associated with these various offices are:

	1975		1976	
	Pos.	Amount	Pos.	Amount
Office of Assistant Administrator.....	5	149,800	5	151,400
Office of Administration.....	738	15,562,200	714	15,788,700
Office of Resources Management.....	183	3,760,600	173	3,816,300

	1975		1976	
	Pos.	Amount	Pos.	Amount
Office of Planning and Evaluation.....	58	4,663,000	58	4,680,600
Office of Education and Manpower Planning.	5	200,500	4	202,100
Office of Audit..	56	2,191,700	91	2,913,200
Total.....	1,045	26,527,800	1,045	27,552,300

The major areas of increase proposed for 1976 are related to the preparation of environmental impact statements and to the Office of Audit.

With certain exceptions, the National Environmental Policy Act of 1969 requires that all Federal agencies prepare environmental impact statements on all of their proposed major actions which would significantly affect the environment. Accordingly, EPA has undertaken the preparation of EIS's (or negative declaration in instances where no significant environmental impact is involved) for municipal wastewater treatment plant grants and for the issuance of new source discharge permits. In addition, the Agency has announced a policy of voluntarily preparing EIS's for major regulatory actions even though they are not required by law. The estimates for 1976 are based upon the following workload projections:

Construction grants -133 EIS's, 2517 negative declarations
New source discharge -100 EIS's, 400 negative declarations
Regulatory actions -20 interim, 30 final EIS's

The preparation of EIS's is a direct responsibility of EPA. The Agency intends to rely on the environmental assessments submitted by applicants for much of the information needed in the drafting of EIS's and plans to rely heavily on consultants to assist the EPA staff in the evaluation of this information and preparation of the final EIS's. This approach will have the least impact on EPA direct employment. Estimates regarding the amount of staff and consultant time required in preparing EIS's and negative declarations have been conservative, and further experience may demonstrate the need for additional resources in this area.

In the discussion of the Agency's strategy for delegating major responsibilities for construction grants administration to the States (which appears elsewhere in this document), it is noted that the audit function is one which must be retained in order to exercise an effective Federal overview. With 1975 staffing levels, the Office of Audit is able to perform audits only at the completion of each construction grant project and, in these final audits, can only review the records of the municipalities which receive the grants. Because of their timing, final audits do not serve as an adequate deterrent to irregularities which might potentially occur before and during construction, and are not sufficiently detailed to detect any irregularities which may have actually occurred in the design and construction phase of the projects. The potential for fraud and mismanagement is obvious in a public works program of this magnitude and a major irregularity could result in an embarrassment to the Agency and to the Administration. The increase of 35 positions and $721,500 indicated above will permit audit coverage to be expanded on completed projects and interim audits to be performed on a representative sample of on-going projects. It is felt that interim audits are particularly effective, both in preventing irregularities and assisting grantees, in the effective management of Federal funds.

The increase in audit personnel is partially offset by a decrease of 35 positions elsewhere in the Office of Planning and Management, to be accomplished by the end of 1976. Twenty-four of these positions will be in the Office of Administration and can be associated with the continued implementation of a recently completed management study of administrative service activities in Washington, D. C.; Research Triangle Park, North Carolina; and Cincinnati. The remaining 11 positions will be distributed among other Office of Planning and Management units located within headquarters.

Agency and Regional Management

Agency Management and Support

Agency Support

	1975	1976	Change
Agency support...	$9,708,400	$11,770,900	+$2,062,500

The Agency support subactivity covers the costs necessary to support all program operations carried on at headquarters; Research Triangle Park, North Carolina; and Cincinnati, Ohio. These include a variety of office and building services including printing and duplicating, office supplies and equipment, audio visual services, motor pool operations, local telephone services, utilities, guard and janitorial services, library services, building maintenance contracts, and associated activities. Also covered are a variety of Agencywide costs which are budgeted for and managed on a centralized basis. These include rental of facilities, postal charges, security clearances, Federal Telecommunications charges, centralized ADP services, costs of the initial equipment for regional laboratories, as well as contractual services for economic and analytical studies which are supportive of a variety of Agency programs.

Since Agency support costs are prorated to the various EPA appropriations according to their personnel levels, the amount shown above is reflective only of that portion of the total which is allocated to the Agency and Regional Management appropriation. However, in order to provide a more complete explanation of the total scope of the Agency's supporting activities the following discussion deals with the overall cost of providing support services.

The total cost of providing support services to the Agency is as follows:

	1975	1976	Change
Building services.	8,892,000	11,139,000	+ 2,247,000
Office services...	1,752,000	2,070,000	+ 318,000
ADP.....	13,333,000	15,833,000	+ 2,500,000
Agencywide costs..	24,165,400	29,413,000	+ 5,247,600
Total.....	48,142,400	58,455,000	+10,312,600

The increase in building services is due primarily to the cost of relocating offices and laboratories into replacement facilities in Washington, D.C.; Research Triangle Park, North Carolina; and Cincinnati, Ohio. These moves are to occur in late 1975 or early 1976. However, it should be noted that many of these costs are of a nonrecurring nature and that some of the remaining cost increases resulting from these moves will be offset by economies and efficiencies accruing in the program areas which occupy the new facilities. Among the anticipated increases attributable to the occupancy of new space are the cost of additional telephone installations; labor services for moving offices, laboratory furniture, and equipment to the new locations; additional guard, janitorial, and employee health services; and contracts for equipment maintenance made necessary by the more complex nature of the new facilities. Provisions are also being made for actual or anticipated increases in the rates charged for local telephone service, utilities, guard and janitorial services, and other related service activities.

The increase in the cost of providing office services can be related almost exclusively to cost increases in office supplies and equipment (including those provided through the GSA supply system) and in the audio visual, printing, and duplicating services.

The Agency is now completing an extensive study of its ADP operations which has been made at the request of the Congress. Pending the review, acceptance, and subsequent implementation of the study's recommendations, the 1976 budget estimates are based upon the amounts required to provide an adequate level of support to Agency programs using existing ADP systems. These estimates also take into account anticipated cost increases related to the scheduled renegotiation of contracts for ADP time-sharing services and for making some improvements in existing systems which can clearly be shown as cost-effective.

The overall increase in Agencywide costs is related to several factors. The most significant is a net increase in rental charges which takes into account additional space or increased charges for facilities in the regional offices and laboratories, the National Environmental Research Centers, and the headquarters. These are partially offset by the savings which result from the move in Cincinnati, Ohio, from leased to government owned space. Others include the full-year cost of increased charges made by the General Services

Administration for the Federal Telecommunications Service, the Postal Service for mail service, as well as the cost of providing equipment for replacement laboratories in Annapolis, Maryland, and Washington, D.C. These laboratories are among those specified in the EPA National Laboratory Plan as urgently needing replacement because the existing laboratories are either wholly inadequate or unsafe.

Agency and Regional Management

Regional Management and Support

	1975	1976	Increase or Decrease
Budget Authority			
Regional Management...	$10,461,800	$10,612,100	+$ 150,300
Regional Support.....	745,000	711,500	- 33,500
Total.....	11,206,800	11,323,600	+ 116,800
End-of-Year Employment			
Regional Management...	491	491	...
Regional Support.....	...	...	...
Total.....	491	491	...

Purpose

The regional management and support activity provides for both the top level direction of program operations and the general management functions which must be carried out in each of the Agency's 10 regional offices. It also includes those support activities required by the regional offices which are not covered by the Agencywide common services costs described previously under the agency support discussion.

Agency and Regional Management

Regional Management and Support

Regional Management

	1975	1976	Change
Regional management.....	$10,461,800	$10,612,100	+$ 150,300

The regional management subactivity provides for the salaries and related expenses of the Regional Administrators and their immediate staffs as well as for those staff offices --intergovernmental relations, public affairs, and civil rights--which report directly to the Regional Administrators. It also covers the region's Management Divisions, which perform the centralized administrative functions--program planning and budgeting, personnel, financial management, procurement, and other service activities required to support regional operations. The resources required for these activities in each of the regional offices are as follows:

	1975		1976	
Region	Pos.	Amount	Pos.	Amount
I (Boston).....	47	943,100	47	957,300
II (New York)....	51	1,048,000	51	1,063,500
III (Philadelphia)	52	1,167,700	52	1,185,100
IV (Atlanta).....	57	1,262,700	57	1,279,700
V (Chicago).....	71	1,425,300	71	1,446,800
VI (Dallas).....	47	1,071,600	47	1,085,800
VII (Kansas City)	36	776,300	36	787,300
VIII (Denver)....	42	975,100	42	987,900
IX (San Francisco)	50	959,400	50	974,600
X (Seattle).....	38	832,600	38	894,100
Total.....	491	10,461,800	491	10,612,100

No program increase is provided for 1976 in the area of regional management except for a minimal increase to provide for the full-year cost of the October 1974 pay raise. As is the case in Agency management, it has been assumed that the administrative workload associated with projected program increases can be accommodated by effecting economies in management operations.

Agency and Regional Management

Regional Management and Support

Regional Support

	1975	1976	Change
Regional support.	$745,000	$711,500	-$33,500

This subactivity covers the common services which are provided in all of the regional offices. These include local telephone service, office supplies and equipment, guard and housekeeping services and similar services required to operate regional offices. As in the case of Agency support, the total cost of support services are prorated to the various EPA appropriations on the basis of personnel strength and the amount shown above is only that portion of the total which is related to regional management activities.

Agency and Regional Management

Summary of Resources
(dollars in thousands)

	1975	1976	Increase or Decrease
Budget Authority			
Agency and Regional Management			
Agency Management....	$39,554.3	$44,264.0	+$4,709.7
Agency Support..	9,708.4	11,770.9	+2,062.5
Regional Management....	10,461.8	10,612.1	+150.3
Regional Support	745.0	711.5	-33.5
Total.....	60,469.5	67,358.5	+6,889.0
End-of-Year Employment			
Agency and Regional Management			
Agency Management...	1,332	1,346	+14
Agency Support.	...	...	...
Regional Management...	491	491	...
Regional Support	...	...	...
Total....	1,823	1,837	+14

REASON FOR INCREASE

Mr. BOLAND. What is the reason for the $6,889,000 increase? It is up over 11 percent.

Mr. ALM. $1.1 million of that is for agency management, of which $400,000 is for pay raise costs, and $3.6 million is for contract funds to prepare environmental impact statements. Page ARM-7 has an estimate of the number of statements; for example, 133 environmental impact statements on municipal waste treatment plants, et cetera. The remaining $2 million increase is for support costs.

As you requested previously, we will prepare an overall analysis of the support account. Those elements just mentioned make up the $6.7 million increase. Also included there is approximately $700,000 additional for audit positions.

This would provide 35 new positions for our audit function. Finally, I might add that in this account elsewhere there is a 35-position reduction within the Office of Planning and Management.

Mr. BOLAND. Will you provide a division of the management from the support costs for 1974, 1975, and 1976 for the record, broken down by various purposes? This will be helpful to us. Will you do that?

Mr. ALM. Yes, sir.

[The information follows:]

ENVIRONMENTAL PROTECTION AGENCY

[In thousands of dollars]

	1974 actual	1975 estimate	1976 estimate	(+) or (−) 1976 over 1975
Agency, regional, and program management and support costs:				
Agency management	$37,079.9	$39,554.3	$44,264.0	+$4,709.7
Regional management	9,971.5	10,461.8	10,612.1	+150.3
Program management	20,188.3	17,011.1	15,579.6	−1,431.5
Support costs:				
Agency	39,557.6	48,142.4	58,455.0	+10,312.6
Regional	4,677.5	5,321.3	5,082.2	−239.1
Program	2,577.5	3,521.5	3,521.5	
Total	114,052.3	124,012.4	137,514.4	+13,502.0
Agency and regional management:				
Agency management	37,079.9	39,554.3	44,264.0	+4,709.7
Regional management	9,971.5	10,461.8	10,612.1	+150.3
Program management				
Support costs:				
Agency	7,904.4	9,708.4	11,770.9	+2,062.5
Regional	738.2	745.0	711.5	−33.5
Program				
Total	55,694.0	60,469.5	67,358.5	+6,889.0
Abatement and control:				
Agency management				
Regional management				
Program management	10,959.8	6,163.9	6,398.0	+234.1
Support costs:				
Agency	16,213.7	21,868.7	26,200.0	+4,331.3
Regional	2,311.1	2,660.7	2,541.1	−119.6
Program	633.5	836.5	836.5	
Total	30,118.1	31,529.8	35,975.6	+4,445.8

ENVIRONMENTAL PROTECTION AGENCY—Continued

[In thousands of dollars]

	1974 actual	1975 estimate	1976 estimate	(+) or (−) 1976 over 1975
Research and development:				
Agency management				
Regional management				
Program management	5,894.2	6,987.5	4,876.5	−2,111.0
Support costs:				
Agency	8,315.1	8,861.7	10,924.2	+2,062.5
Regional	45.2	53.1	50.7	−2.4
Program	1,944.0	2,685.0	2,685.0	
Total	16,198.5	18,587.3	18,536.4	−50.9
Enforcement:				
Agency management				
Regional management				
Program management	3,334.3	3,859.7	4,305.1	+445.4
Support costs:				
Agency	7,124.4	7,703.6	9,559.9	+1,856.3
Regional	1,583.0	1,862.5	1,778.9	−83.6
Program				
Total	12,041.7	13,425.8	15,643.9	+2,218.1

Explanation of Management and Support Costs

AGENCY MANAGEMENT

This covers the top level policy direction of all agency programs provided by the Administrator and his immediate staff and staff offices; the agencywide planning and management functions of the Office of Planning and Management; and the centralized administrative services provided to all operations located in Washington, D.C., Research Triangle Park, N.C., and Cincinnati, Ohio. It also covers the major costs associated with the preparation of environmental impact statements covering EPA's own activities. The requested increase of $4.7 million will provide for expansion of the effort associated with the preparation of environmental impact statements 14 positions and $3.6 million; increased audit coverage of grants for the construction of municipal wastewater treatment plants 35 positions and $0.7 million; and the full year cost of the 1975 payraise, $0.4 million. These increases are offset by a 35-position decrease in the administrative activities of the Office of Planning and Management. Agency management activities are funded under the appropriation account "Agency and regional management."

REGIONAL MANAGEMENT

This provides for salaries and related expenses of the regional administrators and their immediate staffs and staff offices—public information—as well as the Management Division which performs the centralized administrative functions within each regional office. The increase of $150,000 provides for the full year cost of the 1975 payraise. Regional management activities are funded under the appropriation account "Agency and regional management."

PROGRAM MANAGEMENT

This covers the program direction and administrative/management activities of the assistant administrators who direct EPA's major line organizations; their principal deputies, office directors and supporting staffs. Also included are the management and supporting staffs of the major laboratories and other field installations which are under the management of these organizations as well as the Office of the General Counsel and the legal staffs of the 10 regional offices. The net decrease of $1.4 million reflects reductions in the supporting staffs of the Offices of Research and Development, 40 positions; Water and Hazardous Materials, 3 positions; and Enforcement, 5 positions which are partially offset

by an increase of 25 positions in the Office of General/Regional Counsel and 1 position in Office of Air and Waste Management. Funding for these activities are supported under the following three appropriation accounts: Research and development, abatement and control, and enforcement.

SUPPORT COSTS

Support costs fall into three major categories:

Agency Support costs cover the services required to support all program operations at EPA headquarters and at the major field centers at Research Triangle Park, N.C., and Cincinnati, Ohio, such as office services, printing, local communications costs, utilities, guard and janitorial services, et cetera. Also included are the costs of certain agencywide services which are managed on a centralized basis such as facilities rental, penalty mail, charges for the Federal Telecommunications Service, centralized ADP services, as well as contracts for economic and analytical studies which are utilized in connection with a variety of agency programs.

Regional support costs cover the support service requirements of the 10 regional offices which are not covered by the agencywide services described above, and includes items such as office services and supplies, guard and janitorial services, local communications, et cetera.

Program support cost include the general and technical support services required by certain of the laboratories and other field installations which are managed by EPA's major line organizations.

All agency and regional support costs and activities are discussed, in the congressional justification provided the committee, under the heading "Agency and regional management." This is because the total amounts required for agency and regional support activities are allocated among the various EPA appropriations on a pro rata basis so as to associate these costs with the various programs which benefit from them. The amounts allocated to the various appropriations—abatement and control, research and development, enforcement, and agency and regional management are reflected in tables that follow.

Increases in agency support costs total $10.3 million. Of this amount, $2.6 is for office and building services including the cost associated with the relocation of office and laboratories, rate increases for local telephone services, utilities, and supplies and services; $2.5 million is for centralized ADP activities including the additional time-sharing requirements and the cost of renegotiating existing ADP contracts; and $5.2 million is for facilities lease costs and increased charges for postal and Federal telecommunications services.

With respect to regional and program support costs the net effect in the justification reflects an overall decrease of over $200,000. However, more recent information indicates that there will be a need for an increase rather than a decrease for these proposals. Funds will have to be reprogramed from other areas to meet these additional requirements.

REVIEW OF MANAGEMENT ACTIVITIES

Mr. BOLAND. Last year the committee recognized that with a new agency such as yours that there usually developed an initial tendency to become topheavy and that a need developed to consolidate and streamline the organization structure into an efficient operation.

You have sent several reports to the committee recently that reflect you are making progress, and you are to be commended for responding in the way you have.

I am sure the suggestion offered by the committee last year was a constructive one. We have not had time to fully evaluate the actions but they appear to be very fully considered. The committee hopes this close look at how you can operate more efficiently will continue and I am sure it will.

Mr. ALM. It will, Mr. Chairman.

Mr. BOLAND. I knew you would say that.

As you know, last year the committee recognized an apparent need for better coordination and usage of laboratory facilities. The committee recommended that the Agency give consideration to establishing an Assistant Administrator for Field Operations which you have carefully considered—as you have indicated by letter to the committee. While this proposal has not been followed, steps nevertheless are underway to improve the field structure and pull together the management of the laboratories in a more rational way.

As you know, the committee has made its investigative staff report available to you which points up the fragmented administration of these facilities. Are you prepared to report on the findings of this report at this time?

Mr. ALM. I would like to make a few comments, if I may, Mr. Chairman. To begin with, we received the report about 2 weeks ago. We are conducting an in-house evaluation of the recommendations, specifically the recommendation that we combine what is called five laboratory systems into two laboratory systems. This effort is underway and should be completed shortly. I might add that 90 percent of our laboratories are either in our regional offices or under the Office of Research and Development. The other 10 percent represent specialized support laboratories. These include the four pesticide laboratories which support the pesticide registration program, and the National Field Investigations Center in Denver, Colo., which supports the enforcement activity. We also have a laboratory in Ann Arbor, Mich., responsible for the certification of automobiles to meet the automotive emission standards as well as a radiation laboratory in Montgomery, Ala.

All other laboratories are in either the research and development or the regional office laboratory systems.

Mr. BOLAND. In your recent letter to the committee you say:

> A review of the basic management structure and of past operations of ORD, and consideration of external and internal reports on its management, have indicated that the number of management or administrative layers should be reduced and that more responsibility for program direction should reside in the field.
>
> To accomplish these two objectives, we have decided to place the research management responsibilities, that currently reside at the National Environmental Research Center administrative level, directly at the laboratory level.
>
> In addition, we intend to reorganize the headquarters staff to provide only one tier of management between the Assistant Administrator for R. & D. and the laboratory directors.

The investigative staff suggests that there should be no more than two laboratory systems—regulatory, and research and development—and there should be a formal procedure for active coordination of all laboratories, not just a couple of blocks on an organizational chart.

Did I hear you indicate that this is what you were doing, that you are reducing the laboratory system from five to two?

Mr. ALM. No, sir.

We are going to review whether or not that is a feasible and viable recommendation.

Mr. TRAIN. The recent reorganization of the R. & D. program has, I think, effectively addressed at least partially the problem of layers mentioned in the report. I think Dr. Talley could discuss that in greater detail but the overall programs as to the consolidation and simplification of the overall research program beyond O.R. & D. is under active review. We have just gotten this report. It looks like a very valuable piece of work but to suggest what our conclusions will be at this point—I am just not ready to say.

TIME-DEPENDENT ANALYSIS OF WATER SUPPLY

Mr. BOLAND. On page 3 of the report, the 1972 laboratory plan recommended that the number of laboratory facilities be reduced from 56 to 38. The 1974 laboratory plan limits the reduction to 46 facilities. In planning the limited reduction, it has been pointed out that the need for time-dependent analysis of water samples requires the retention of small laboratory facilities in six critical locations, Cleveland, Ohio; Minneapolis, Minn.; Evansville, Ind.; Wheeling, W. Va.; Rochester, N.Y.; and Grosse Isle, Mich. How are time-dependent analyses of water samples handled in other parts of the country? They all seem to be in one geographical location.

Mr. AGEE. The ones cited were set up by the field office in Chicago. Where the samples are time-dependent, we do the analysis as we collect the samples, or we preserve them and send them to the various laboratories.

Most of our water samples are not time-dependent. We do not have to get at them right away. We do fix a lot of them as we collect them and incubate them at time of collection through time of transport.

Dr. TALLEY. When you speak of analysis of water samples, you have to specify what it is you are looking for. If you are looking for trace organics in the drinking water there are not that many places in the country where facilities exist to do the analysis. So that you must send the samples to a central location for an analysis.

MISSISSIPPI TEST FACILITY

Mr. BOLAND. The Mississippi test facility is a NASA-owned site where EPA laboratories are located—regional, pesticide monitoring and pesticide chemistry. The 1974 EPA plan eliminated a previously planned national pesticide center at this site. There is an indication that this is because NASA is not satisfied with the pesticide activity now located there as being compatible with NASA programs and expertise. The 1976 budget contains $325,000 for the installation of a sprinkler system and other modifications at MTF.

What was the basis for initially transferring the pesticide activity to MTF?

Mr. ALM. In our initial laboratory plan, EPA planned to move all test facilities to the Mississippi test facility. When we reevaluated our laboratory needs in 1974, we concluded that that would not make sense for a number of reasons. One, of course, was we had space available at Cincinnati. That would be Government-owned space.

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The laboratory report recommends that we move all the pesticide activities to Cincinnati now.

We have certain activities that are dependent on some of the plant life in the area. So we want to keep a facility at the Mississippi test facility and one at Beltsville, Md., and transfer about 20 people from Beltsville to Cincinnati. This is all in our laboratory plan that was made available to the committee.

Mr. BOLAND. Are you still planning to expend the $325,000 for the sprinkler system modification?

Mr. ALM. Yes; we would plan to do so.

Mr. BOLAND. Even though NASA doesn't feel that the pesticide activity is compatible with its programs?

Mr. ALM. I am not aware that this is the case.

Mr. BOLAND. That is what they tell us.

Mr. ALM. I will check that out, sir. My experience with NASA at the Mississippi test facility is that they do not want us to move anything out.

Mr. BOLAND. Are you going to consolidate the pesticide activity with Cincinnati?

Mr. ALM. We plan to have three facilities, a small one at Beltsville, Maryland and——

Mr. BOLAND. And one in Cincinnati and one at MTF.

Mr. ALM. That is correct.

Mr. TALCOTT. How about the tests out West? Aren't there many out there?

EFFICACY TESTING

Mr. ALM. I think the kinds of efficacy tests we conduct can be done at these facilities, at Beltsville and the Mississippi test facility. Do you want to comment?

Mr. AGEE. We have a small efficacy test facility in Oregon, where we do it for the western part of the United States.

Mr. TALCOTT. There is no danger of overlaboratorizing a certain region of our country, is there, like region 5?

Mr. ALM. I do not think so.

Jim, why don't you talk about the geographic dispersion of these laboratories in terms of efficacy testing.

It is my understanding we are covering the basic kinds of trees and plants where you might have pesticide problems.

Mr. AGEE. We do most of the efforts at testing here at Beltsville. We do have this one efficacy testing laboratory in Corvallis, Oreg., where we handle some of the western type shrubbery. They were doing efficacy testing on roses the last time I was there.

We do the pesticide analysis of samples collected from enforcement, from product formulators, or from manufacturers at four locations in the country. That is a laboratory combined with our regional laboratory. The same is true in San Francisco and Denver. We do the samples collected in the Southeastern part of the United States at MTF.

TESTING OF PESTICIDES

Mr. TALCOTT. So you are testing the pesticides where they are manufactured rather than where the pests themselves may be?

Mr. AGEE. Yes.

There are two types of work, testing the product itself to see that it is as prescribed on the label and it is not adulterated. Another type is efficacy testing. The label will say it will control spider mites on something or other. We try it out and see if the spider mites are in fact obviated by this thing. We do such things as testing dog collars which have pesticides in them for flea control. We see that they are efficacious and will do the job.

NATIONAL FIELD INVESTIGATION CENTERS

Mr. BOLAND. On pages 9 and 11 of the report, a previous study by the investigative staff regarding Federal laboratories in March of 1974 found that National Field Investigation Centers, NFIC's, had no more technical expertise than a regional laboratory and that the NFIC's were an example of duplication of effort and equipment. The investigative staff recommended that both NFIC's in Denver and Cincinnati be abolished.

On November 27, 1974, you advised that the NFIC in Cincinnati was being abolished and would be phased out by September 1975.

There are informed opinions from reasonably responsible persons indicating that programs and activities of the NFIC's are redundant and duplicative and that if one NFIC can be abolished the other can be abolished.

Mr. JOHNSON. I will speak to that. One is being phased out in Cincinnati. The other, in Denver, will be made multimedia. I do not agree that they are redundant. It should be noted that the regional offices specifically request testimony from the expertise available at the NFIC in support of both adjudicatory hearings and judicial proceedings. They are also requested to support various headquarters' efforts. Let me give you some examples. They wrote six of the effluent guidelines we were required to promulgate under the Federal Water Pollution Control Act. They were written at the National Field Investigation Centers and adopted here in Washington. None of our other offices were able to engage in this specific effort because they didn't have the expertise and number of expert people to do that kind of work.

Another good example would be the program we have for using aerial surveillance to cover as much of the country as we can to make up for lack of resources by widespread coverage. None of the regional offices have been able to develop their own aerial surveillance program because they do not have the numbers of people required to get a program like that going.

Another example would be the stack sampling which none of our ten regional offices do at the moment because stack sampling is still sort of a developing art which requires specialized equipment and activities conducted under the most hazardous circumstances.

In this regard, we have assigned the NFIC the task of feasibility assessment and demonstration of an instrumentation approach for determining compliance with opacity regulations as an alternative to the more subjective approach of using certified smoke readers. We feel that long-range enforceability will be improved in this way.

Because of the strict procedures regarding chain of custody and quality control which must be employed in enforcement case preparation, these examples demonstrate the kind of assignment in the enforcement area that can be done in a national field investigation center which you could not do in a regional office where you don't have the same critical mass of talented people who can work on these types of problems.

Mr. BOLAND. And that points to the fact that there is justification for retaining the NFIC in Denver, then?

Mr. JOHNSON. Yes, it does.

RESEARCH TRIANGLE PARK, NORTH CAROLINA

Mr. BOLAND. On pages 14 to 16 of the report, there were $2 million in prior year appropriated funds to prepare plans to construct a $40 million laboratory facility at Research Triangle Park, North Carolina, containing 285,000 net square feet of space. This facility would be adjacent to a planned $67.5 million DHEW, National Institute for Environmental Health Sciences, laboratory facility. GSA is currently completing negotiations with the Beaunit Corp. for EPA to take over its entire research laboratory building at RTP on a 5-year lease that is supposed to provide suitable space for EPA's present needs. Some of this new space, as well as some presently leased EPA space, will be occupied by contract employees.

What steps have been taken by EPA and DHEW to insure that there would be no duplication of programs and/or facilities at RTP?

Mr. ALM. In terms of laboratory space, the National Institute of Health Sciences plans to construct the building on an adjacent site. Our plan is to move close by, so as to share certain facilities and improve the economy of this proposal.

If HEW decided not to do this, we would have to reevaluate this proposal. It is our understanding that they are planning to construct the building on this site. Obviously the physical proximity has great advantages in terms of coordination. There are many programs, in which we have common interests such as health effects research. Perhaps Dr. Talley would like to comment on this.

Dr. TALLEY. Not only are there formal arrangements so that each side knows what the other is doing but there are informal arrangements such as their stealing our former employees and vice versa.

The research performed by NIEHS is years down the road. It is of use to us. We are interested in guiding them in the programs they select. But they are not under the pressures for research programing as is a regulatory agency. When examined, in detail, the two research programs are complementary rather than overlapping.

SPACE FOR CONTRACT EMPLOYEES

Mr. BOLAND. The report shows that you are providing a certain amount of contract employee space. What are your views on that?

Mr. ALM. I believe the laboratory report showed there were advantages in having the contract employees working closely with EPA personnel.

Would you like to comment?

Dr. TALLEY. That is true. In several cases we may have to launch a research effort in which we know certain projects must be accomplished in a time frame of 6 months, a year or 2 years. There is a decided advantage in employing a contractor for performing this rather than employing Federal employees.

CHARGES TO CONTRACTORS FOR SPACE

Mr. BOLAND. What do you charge the contractors for this space?

Mr. ALM. May I provide that for the record?

Mr. BOLAND. All right.

[The information follows:]

We are presently not charging contractors for space. We find that by providing the space, we achieve a number of objectives not otherwise possible: The total contract cost is lower, we have an opportunity to supervise the contract product more closely, or we enable our own employees to keep abreast of the state of the art, by providing an "exchange-of-information" atmosphere. We could award the contracts on the basis of having the contractors get their own space, but we lose other benefits, and we feel—since most contractors are not in the real estate business—they will hedge their proposals somewhat more extravagantly than they would if they were assured of the space in the first instance.

LEASING OF RESEARCH LAB

Mr. BOLAND. If a suitable long-term lease of the Beaunit Research Laboratory can be negotiated, would this negate or substantially reduce the scope of any planned new EPA facility at RTP?

Mr. ALM. We had always planned to lease the Beaunit Building for 5 years to allow time to build a new laboratory. There is one legal problem in the investigative committee's report. That is the Economy Act. Generally, we are not allowed to spend more than 25 percent of 1 year's lease costs for improvements.

The changes which would have to be made to the Beaunit Building over the long run to meet OSHA and other health and safety standards would be in the neighborhood of $2 million.

Under the Economy Act that will not be possible. We will take a closer look at this issue in terms of the legal impact.

Mr. BOLAND. We have a number of other questions which we will submit to you and you may provide the answers for the record.

[The questions and answers follow:]

NEWTOWN FISH TOXICOLOGY LAB

Question. The Newtown Fish Toxicology Laboratory is adjacent to the site of a State fish hatchery in Newtown, Ohio. There are some 11 employees occupying 6,000 square feet of space, including 5,200 square feet of laboratory space. There is also $390,000 in appropriated funds for a new "wet lab." The new "wet lab," which would be built as an extension to the existing facility, would provide 5,000 square feet of space, representing an increase of almost 100 percent.

(*a*) Are there sufficient program requirements or could they be realistically developed to justify new construction or increase of space at Newtown.

(*b*) Are there not new "wet laboratories" at Duluth and Corvallis specializing in water quality standards for fresh water?

(*c*) Can the research programs being conducted at Newtown, Ohio, be done at either Duluth, Corvallis, or any other existing EPA facility?

(*d*) What is the EPA's justification for duplicating "wet lab" facilities at Newtown, Ohio?

Answer. There are important features unique with the Newtown location that require its existence:

1. The type of water available has important characteristics not duplicated at any other EPA facility.
2. The ample, natural, unchlorinated spring-fed water supply at the Newtown fish farm provides the best potential for rearing aquatic life and conducting life history investigations for determination of the water quality requirements for aquatic life.
3. Above conditions allow for the ability to rear healthy fish required for laboratory investigations.
4. Because of the difference in water quality, data generated at Newtown is invaluable, in conjunction with data generated at Duluth or at Corvallis, which specializes in fish native to that area, for providing legally viable information sufficient for establishing water quality standards and/or effluent criteria.

The present facility has minimal head room as an aquatic laboratory and minimal floor area restricting the number of experiments that can be carried out at any one time. Experiments carried out in an aquatic laboratory are normally relatively long running. Under such conditions it is not appropriate to relate numbers of people to amount of square feet.

Eastern Environmental Radiation Facility

Question. Are there tentative plans to request $1.2 million in the fiscal year 1977 budget ($900,000 for annual rental of new space and $300,000 for new equipment) for the eastern environmental radiation facility (EERF), Montgomery, Ala.

Did EERF receive an informal solicitation from Auburn University, Montgomery, Ala., in February stating the university would provide 50,000 square feet of space at $8.00 per square foot for a 20-year lease, excluding utilities, or an annual rental of $400,000?

(*a*) Has EPA made a formal approach to Auburn University in regard to the above proposal, particularly if it would be considerable savings and provide EPA with new facilities which, according to your people, are needed?

(*b*) Does EPA plan to follow up on this proposal?

Anwser. It is intended to include the projected rental cost for new space, to house the EERF at Montgomery, Ala., in the fiscal year 1977 budget request.

The director of the EERF did receive an informal offer from Auburn University for leased laboratory space at $8.00 per square foot based on a 20-year lease term. Based on 50,000 square feet this would develop an annual rental cost of $400,000. This figure is in stark contrast with our estimate of $900,000 for similar facilities. However, Auburn University is involved in a major construction program, including laboratory construction and should have a feel for construction costs in that area. Although we feel it will be adjusted upward when specific requirements are presented.

EPA has not, as yet, pursued this informal offer. We have felt constrained from doing so until we had received approval of our plans for EERF from the subcommittee. We feel the Auburn University campus would be an ideal location for our laboratory. We will resume our negotiations with the university when we have authority to proceed.

Regional Lab in Atlanta, Ga.

Question. The committee understands that the regional laboratory for region IV, Atlanta, Ga., jointly shares space in a federally owned building, Athens, Ga., with the Southeast Environmental Research Laboratory. Working conditions are crowded. Is $650,000 requested in 1976 to obtain suitable leased space for a regional laboratory at Atlanta, Ga.?

It is also indicated that, in addition to the cost of relocating the lab, the current rate for special purpose space in Atlanta, Ga., is $12–$15 per square foot for downtown space and $10–$12 per square foot in suburban Atlanta. In Athens, Ga., an EPA official said the University of Georgia advised EPA informally they would construct a facility for EPA for approximately $7–$8 per square foot.

(*a*) Has EPA made a formal approach to University of Georgia officials regarding the above proposal? Does it plan to?

(*b*) In addition to possible savings, do the benefits of the laboratories location in a research complex at Athens outweigh possible administrative benefits by relocating to Atlanta?

Answer. The $650,000 requested in fiscal year 1976 is for a combined regional headquarters and regional laboratory in the Atlanta area. EPA has not approached, nor do they plan to approach the University of Georgia officials regarding the acquisition of space in the Athens area. We feel that administrative efficiencies and economy are greater at an Atlanta location (communications, travel, procurement, personnel, facilities management, motor pool, etc.). The increased efficiencies and responsiveness of analysis, evaluation, investigation, and technical assistance activities offset costs of relocation.

TOTAL RESOURCES IN EPA LABS

Mr. BOLAND. Place in the record a summary of the total costs and positions in the EPA laboratory facilities in 1975 and 1976.

[The information follows:]

EPA LABORATORY FACILITIES
(FY 1975 and FY 1976)
($000/Pos.)

	FY 1975		FY 1976	
	$	Pos.	$	Pos.
Durham 1/	50,527.5	1,009	51,567.6	1,005
Cincinnati 1/	18,174.2	536	18,174.2	529
Corvallis 1/	18,435.8	485	18,435.8	485
Las Vegas 1/	4,124.1	86	4,124.1	86
Ann Arbor 2/	16,057.4	227	11,874.9	230
Cincinnati (NFIC) 3/	2,012.0	69	1,439.6	...
Denver (NFIC)	1,981.9	65	2,045.4	65
Sum Totals	$111,312.9	2,477	$107,661.6	2,400

1/ The 4 EPA-National Environmental Research Centers (Durham, Cincinnati, Corvallis, & Las Vegas FY1976 budget reflects primarily the FY1975 level pending the outcome of a major Research & Development reorganization. Included in these National Lab figures are the satellite and program support facilities.

2/ Resources involving the Ann Arbor Lab are for the total mobile source abatement & control program which is located at this Michigan facility.

3/ The NFIC-Cincinnati Lab. is to be phased out in FY1976, there will be no positions remaining there after June 30, 1976 however, funding is required in connection with this readjustment.

NOTE: Positions shown are full-time permanent.

INVESTIGATIVE REPORT

Mr. BOLAND. We shall place the report by the surveys and investigative staff on the utilization of research facilities in the record at this point.

[The report follows:]

NOT FOR RELEASE UNTIL AUTHORIZED BY THE COMMITTEE

April 21, 1975

MEMORANDUM FOR THE CHAIRMAN

Re: Utilization of Research Facilities
Environmental Protection Agency

By directive dated November 18, 1974, the Committee requested a study be made of the utilization of research facilities by the Environmental Protection Agency.

The study has been completed and the results are included in this report.

Respectfully submitted,

David A. Schmidt

David A. Schmidt, Director
Surveys and Investigations Staff
House Appropriations Committee

C R Anderson

C. R. Anderson
Chief of the Surveys and
Investigations Staff
House Appropriations Committee

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SUMMARY AND OBSERVATIONS

The Environmental Protection Agency (EPA) was created in December 1970, with the merger of 15 separate existing units from other departments and agencies. Included were 56 laboratory facilities at 40 separate locations.

An EPA study in 1972 developed a Laboratory Plan, calling for consolidation of facilities into 24 locations. An updating of the Plan in 1974 expanded this to 32 locations.

Currently, the EPA has 50 laboratory facilities at 34 locations, including 18 regional laboratories; 4 National Environmental Research Centers (NERCs) with 10 associate laboratories and 5 field stations; 8 pesticides laboratories; 2 National Field Investigation Centers (NFICs); 2 radiation laboratories; and 1 motor vehicle emission laboratory.

Administration of laboratory facilities is fragmented among 10 Regional Administrators and 4 Assistant Administrators at the Central Office. At present, there are organizationally 5 laboratory systems within EPA:

(1) Regional laboratories report to their respective Regional Administrator;

(2) Pesticides laboratories report to the Assistant Administrator for Water and Hazardous Materials;

(3) Radiation monitoring and motor vehicle emission laboratories report to the Assistant Administrator for Air and Waste Management;

(4) National Field Investigation Centers report to the Assistant Administrator for Enforcement and General Counsel; and

(5) National Environmental Research Centers, with associate laboratories and field stations, report to the Assistant Administrator for Research and Development.

Some present and former EPA officials expressed the opinion, and the Investigative Staff agrees, that there should be no more than 2 laboratory systems: (1) regulatory; (2) research and development.

A previous study by the Investigative Staff recommended that the 2 NFICs be abolished, with personnel and equipment being distributed to other laboratories as the NFICs seemed a duplication of effort and equipment. EPA has taken action to abolish the NFIC in Cincinnati, which is being phased out by September 1975. A former EPA official and several current officials believe the activities of the NFICs are duplicated within the agency and that if one NFIC can be abolished, so can the other. The Investigative Staff recommends the NFIC-Denver, also be abolished and the personnel and equipment be incorporated into the office of Research and Development or the regional programs.

EPA has a task force presently completing a study that will deal with reorganization of the laboratories under the Assistant Administrator for Research and Development. The study was instituted because of concern by some EPA officials that the NERCs represented an "artificial theme concept that did not exist and created an unnecessary layer of administration."

The initial findings of the task force have caused a more direct laboratory reporting system and removal of an unnecessary layer of administration. The Investigative Staff recommends that the reorganization study be expanded to include laboratories under the other Assistant Administrators.

Other factors contributing to operational problems are the physical condition or quality of laboratory space, restrictive requirements of the Office of Safety and Health Administration (OSHA) and general manpower ceiling limitations.

The Investigative Staff limited its site visits to 21 selected laboratory facilities at 10 locations where expenditure of appropriated funds or budget requests for major modifications for new facilities are planned.

The Investigative Staff does not believe the planned expenditure of funds is justified at Newtown, Ohio; the Mississippi Test Facility, Bay St. Louis,

Mississippi; and Research Triangle Park, North Carolina. At Cincinnati, Ohio, and Montgomery, Alabama, the Investigative Staff recommends that detailed, current space requirements be prepared and reviewed prior to any expenditure of funds.

Also, at Cincinnati, it appears the remodeling of the Taft Center building will provide adequate space for a projected growth of the National Institute of Occupational Safety and Health, negating the need for another multimillion dollar facility at Cincinnati.

In addition, EPA should pursue negotiations with the University of Nevada at Las Vegas and the University of Georgia at Athens for space requirements in those cities at apparently substantial savings for needed space. Based upon current and future programs, additional facilities at Corvallis, Oregon, and Gulf Breeze, Florida, seem necessary and the expenditure of funds justified. EPA should accept the GSA proposal to relocate the Chicago Central Regional Laboratory to the recently designated "special use" building, which would result in substantial savings.

EPA should make every reasonable effort to complete as soon as possible an overall, finalized organizational structuring of its research endeavors to: (1) realize the economies of consolidation; (2) eliminate duplication and excessive administrative layering; (3) acquire the responsiveness of a streamlined administrative structure; and (4) assure the maximum return on funds invested in research.

I. INTRODUCTION

A. Directive

By directive dated November 18, 1974, the Committee requested that a survey be made of the utilization of research facilities by the Environmental Protection Agency (EPA), to include the need for certain major modifications to existing facilities and/or new facilities.

B. Scope

In response to the directive, the Investigative Staff met with officials at EPA headquarters in Washington, D. C., and also interviewed officials of the Department of Health, Education, and Welfare; the General Services Administration; and a former EPA official.

After meetings and briefings in Washington, D. C., the Investigative Staff visited and interviewed officials at various EPA research facilities in: Cincinnati, Ohio; Chicago, Illinois; Las Vegas, Nevada; Corvallis, Oregon; Denver, Colorado; Montgomery, Alabama; Bay St. Louis, Mississippi; Gulf Breeze, Florida; Athens, Georgia; and Research Triangle Park, North Carolina. Pertinent documents, records, and studies at both headquarters and field levels were reviewed.

II. BACKGROUND

EPA was created in December 1970, with the merger of 15 separate existing units from other departments and agencies. Its purpose was to mount an integrated attack on pollution by bringing under one organizational roof all Federal activities for the control of air and water pollution, drinking water quality, solid wastes, pesticides, environmental radiation, and noise.

EPA presently has 50 laboratory facilities, all of which were inherited under Reorganization Plan No. 3 of 1970 which set up the EPA.

In 1971, in response to a directive contained in the FY 1972 Report of the Agriculture-Environmental and Consumer Protection Subcommittee of the House Committee on Appropriations, the Administrator of EPA formed a Laboratory Plan Study Group to develop a laboratory plan which was to be fully responsive to the Agency's environmental mission. The results of the study were set forth in a document entitled "Laboratory Plan for the Environmental Protection Agency," dated November 1972.

In 1974, the Administrator of EPA commissioned a study group to reevaluate the 1972 Laboratory Plan. The results of this study were presented in a document entitled "Laboratory Plan for the Environmental Protection Agency," dated March 1974.

The 1974 plan revalidated the objectives of the 1972 Laboratory Plan, i.e., (1) to provide EPA regions with safe and adequate laboratory facilities; (2) to strengthen the regional analytical support to regulatory actions and state technical assistance; (3) to consolidate research laboratories on a programmatic basis to concentrate scientific capabilities in a minimum number of locations; and (4) finally to proceed on a high priority with required modifications or replacement to existing facilities to meet Office of Safety and Health Administration (OSHA) and EPA safety requirements.

This plan, as developed, was to: eliminate, wherever possible, fragmentation and duplication of effort; promote unified direction of programs; transfer emphasis from single-media programs to multi-media programs (i.e., consolidate towards a uniform environmental approach); and consolidate, where possible, to keep capital and operating costs to a minimum.

The 1972 plan recommended that between FY 1973 and FY 1977, the total number of laboratory facilities be reduced from 56 to 38 and the laboratory locations from 42 to 26 and that programs in the area of water, air, pesticides, and radiation be consolidated. Since then, EPA has reduced the number of laboratory facilities from 56 to 50 and locations from 42 to 37.

The 1974 plan contained certain revisions which will result in limiting the reduction in the number of laboratory facilities to 46 at 35 locations as opposed to the 1972 plan of 38 facilities at 26 locations.

EPA officials, in explaining the limited reduction, pointed out that the need for time-dependent analyses of water samples required the retention of small laboratory facilities in 6 critical locations: Cleveland, Ohio; Minneapolis, Minnesota; Evansville, Indiana; Wheeling, West Virginia; Rochester, New York; and Grosse Ile, Michigan. The pesticide laboratory facility at Beltsville, Maryland, will also be retained because of ongoing pesticide programs tied to existing agricultural plots and orchards at that location.

The 1974 plan also eliminated the consolidation of pesticide programs into a National Pesticide Center at the Mississippi Test Facility, Bay St. Louis, Mississippi. According to one EPA official, this was because the National Aeronautical Space Administration (NASA) was "not satisfied with the pesticide activity as being compatible with the NASA programs and expertise."

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The Investigative Staff notes that EPA is transferring 35 pesticide laboratory positions and some programs from Washington, D. C., to Cincinnati, Ohio, in the Summer of 1975. It is the opinion of the Investigative Staff that EPA at this time should consider consolidation of other pesticide programs at Cincinnati.

III. OPERATIONAL PROBLEMS OF EXISTING FACILITIES

A. Organizational Structure

EPA officials, although in complete accord with the concept and intent of setting up EPA, pointed out that when you bring 15 separate governmental units under one roof, you also bring together 15 separate organizational "bureaucratic fiefdoms." They noted that progress has been made in consolidating programs in many functional areas; nonetheless, there has been a lack of consolidation of laboratory systems.

The laboratory systems of EPA are divided into 2 basic categories: (1) Regional Laboratories within each region, and (2) National Laboratories handling programs of national scope. This latter category includes National Environmental Research Centers (NERC), National Field Investigation Centers (NFIC), and program support laboratories in pesticides, radiation, and motor vehicle emission control systems.

Responsibility for the administration of activities and programs of their laboratory facilities is fragmented among the 10 Regional Administrators and 4 of 5 Assistant Administrators at the Central Office--Enforcement and General Counsel, Water and Hazardous Materials, Air and Waste Management, and Research and Development.

Some present and former EPA officials advised they are of the opinion that there should be no more than 2 laboratory systems--Regulatory, and Research and Development--and there should be a formal procedure for active coordination of all laboratories, "not just a couple of blocks on an organizational chart." The Investigative Staff concurs.

An official of EPA remarked about the lack of coordination of laboratory operations and functions within EPA pointing out that organizationally there

are 5 laboratory systems: Regional Laboratories report to their respective Regional Administrator; Pesticide Laboratories report to the Assistant Administrator for Water and Hazardous Materials; Radiation Monitoring and Motor Vehicle Emission Laboratories report to the Assistant Administrator for Air and Waste Management; National Field Investigation Centers report to the Assistant Administrator for Enforcement and General Counsel; National Environmental Research Centers report to the Assistant Administrator for Research and Development. He stated that some Assistant Administrators frequently are not as interested in utilization of facilities as in programs they can obtain or develop in their laboratory system. Further contributing to lack of coordination is the organizational structuring of program planning and evaluations under the Assistant Administrator for Planning and Management, who is the only Assistant Administrator with no laboratories within his organization.

Indicative of the problems of communication and reporting under the present organization, previously described, is the administrative structure of the NERC, Corvallis, Oregon. The NERC-Corvallis, is 1 of 4 such centers reporting to the Office of Research and Development in Washington, D. C. It has 9 associate laboratories: (1) Pacific Northwest Environmental Research Laboratory, Corvallis, Oregon; (2) National Ecological Research Laboratory, Corvallis, Oregon; (3) Artic Environmental Research Laboratory, College, Alaska; (4) Robert S. Kerr Environmental Research Laboratory, Ada, Oklahoma; (5) National Water Quality Laboratory, Duluth, Minnesota; (6) Grosse Ile Laboratory, Grosse Ile, Michigan; (7) National Marine Water Quality Laboratory, Narragansett, Rhode Island; (8) Southeastern Environmental Research Laboratory, Athens, Georgia; and (9) Gulf Breeze Environmental Research Laboratory, Gulf Breeze, Florida.

In addition, there are 5 field stations: Newport Field Station, Newport, Oregon; Ely Field Station, Ely, Minnesota; Western Fish Toxicology Station, Corvallis, Oregon; Newtown Fish Toxicology Station, Newtown, Ohio; and the Bears Bluff Field Station, Johns Island, South Carolina.

While all the associate laboratories report directly to the NERC-Corvallis, the field stations report to different associate laboratories.

The Newport Field Station and the Ely Field Station (located 100 miles north of the associate laboratory in Duluth), report to an associate laboratory, Corvallis, Oregon. The Western Fish Toxicology Station (located only a few miles from the NERC-Corvallis) and the Newtown Fish Toxicology Station (located a few miles from the NERC-Cincinnati) report to the associate laboratory in Duluth, Minnesota. The Bears Bluff Field Station, Johns Island, South Carolina, reports to the associate laboratory in Gulf Breeze, Florida.

A former EPA official advised that the original task force which set up EPA envisioned only 4 Assistant Administrators: (1) Operations; (2) Regulatory (standard setting); (3) Research and Development; and (4) Administration.

The Office for Administration would have had the responsibility for personnel, budget, and internal affairs only. This office and the Office of Regulatory Matters would have close liaison with the General Counsel's Office which organizationally would report directly to the Administrator of EPA.

Regional laboratories would report organizationally to the Assistant Administrator for Operations and the National Laboratories would be under the Assistant Administrator for Research and Development. Regional Administrators would report for "prestige purposes" directly to the Administrator of EPA, but coordination between them and the rest of the agency would be through the Assistant Administrator for Operations.

The Administrator of EPA by letter dated February 12, 1975, notified the Chairman, Subcommittee on HUD, Independent Agencies, Committee on Appropriations of a reorganization plan in the Office of Research and Development (ORD). He stated:

> "...a review of the basic management structure and past operations of the ORD and consideration of external and internal reports on its management, have indicated that the number of management or administrative layers should be reduced and that more responsibility for program direction should reside in the field. To accomplish these responsibilities we have decided to place the research management responsibilities that currently reside at the National Environmental Research Center administrative level directly at the laboratory level. In addition, we intend to reorganize the headquarters staff to provide only one tier of management between the Assistant Administrator for Research and Development and the laboratory directors. This new program grouping will permit us to utilize our existing resources more effectively...and will clarify reporting lines between the laboratories and headquarters."

EPA officials advised that the reorganization plan referred to by the Administrator provides for 7 of the 9 NERC-Corvallis associate laboratories to report directly to the headquarters level. The associate laboratory in College, Alaska, will continue to report to Corvallis because of its geographic location and the associate laboratory at Grosse Ile, because of specific program requirements, will report to Duluth.

The Western Fish Toxicology Station will now report to NERC-Corvallis but, because of specific program requirements at this time, the other 4 field stations will continue to report to the same associate laboratories as before. However, additional studies will be made to determine if these 4 field stations "are still necessary or have outlived their reason for existency."

The Investigative Staff agrees that the reorganization plan is a step in the right direction, however, the Investigative Staff is of the opinion that

this reorganization study should include all EPA laboratory facilities with the ultimate goal of developing the 2 laboratory systems referred to earlier.

In a previous study conducted by the Investigative Staff regarding Federal laboratories reported in March 1974, it was found that there was no more technical expertise in an NFIC than in a regional laboratory and the methodology, standards, and equipment were the same. EPA officials stated that most of the problems handled by the NFICs were strictly regional in nature and it would be more of an advantage for the regions to have this knowledge and experience first hand. Additionally, it was advised that the bulk of the work done by the NFICs was "field work" which supported observations by the Investigative Staff that much of the NFIC laboratory space was frequently unoccupied or only partially utilized.

It was the opinion of the Investigative Staff at that time, and this opinion was reinforced during the current study, that the NFICs were an example of duplication of effort and equipment and should be abolished. Other factors supporting the abolishment of the NFICs were the underutilization of expensive equipment and continuous laboratory competition for funds. A former EPA official told the Investigative Staff the equipment was duplicated in other EPA laboratory facilities and the NFICs utilized their equipment less than 25 percent of the time.

Nonetheless, it was not until November 1974, and then only as a result of a cutback in personnel recommended by the Office of Management and Budget, that EPA notified the NFIC-Cincinnati it was being abolished and would be phased out by September 1975.

In a letter dated November 27, 1974, to the Chairman, Subcommittee on Agriculture, Environmental and Consumer Protection, Committee on Appropriations,

the Administrator of EPA set forth the management decision to phaseout the NFIC-Cincinnati as 2-fold: (1) regional offices in the past year or so have developed their own technical support and laboratory capabilities and no longer need the degree of technical support upon which they relied in the past, and (2) the enactment of the Federal Water Pollution Control Act Amendments of 1972, greatly simplified the enforcement approach and strengthened the role of the states, thus reducing the need for extensive Federal field surveys for which the Centers were originally established.

The Administrator advised that, because the role of the NFIC-Denver is being changed to encompass technical support of air and pesticides enforcement activities as well as innovative support of water enforcement activities, EPA elected to phaseout the NFIC-Cincinnati instead of the NFIC-Denver. The Denver facility has a significantly more modern plant and equipment and, as enforcement technology moves into the area of remote sensing, the Denver facility's proximity to the NERC-Las Vegas monitoring laboratory clearly favored that location. He also indicated the technical abilities of the Eastern Regions have become especially well developed and these regional offices are capable of meeting their enforcement challenges.

A former EPA official and several current EPA officials believe the programs and activities of the NFICs are redundant and duplicated within the agency and it only makes sense that if one NFIC can be abolished the other can also be abolished. However, there are some EPA officials who believe the NFICs are the only entity within the agency capable of handling EPA's enforcement responsibility. These beliefs are in direct contrast to the position set forth above by the Administrator of EPA.

Some EPA officials advised that the Western Regions also have the technical capability and expertise to meet their enforcement challenge and that the NFICs represented an unnecessary administrative layer at the headquarters level.

The Investigative Staff recommends that the NFIC-Denver be abolished and the personnel and equipment be incorporated into the Office of Research and Development or the regional programs. This would remove an unnecessary administrative layer but retain and place the technical capability and expertise where it belongs.

B. Other Operating Problems

Other problems that tend to decrease the efficiency and utilization of scientific facilities were pointed out to the Investigative Staff.

One EPA official advised that the physical condition of some of the EPA laboratories leads to inefficiency as it is his opinion that quality of space accounts for 30-40 percent of the quality of work performed in the laboratory.

The Investigative Staff observed that the physical condition of some laboratories appears inadequate and fragmented, e.g., the Eastern Environmental Radiation Facility in Montgomery, Alabama, is housed in 28 small buildings. As a result, environmental samples to be examined for standards and analysis are received and recorded in one building, transferred to another building and on some occasions, to a third building in order to complete the required examination and/or evaluation. An EPA official indicated that, in addition to the time lost in the continual transferring of samples, it could also cause contamination and this would require obtaining additional samples causing a further delay in the particular program.

EPA officials averred that considerable improvement has been made in many of the laboratories; however, they questioned the OSHA designations of "high

hazard operations," as they pertain to some EPA laboratories. It was their opinion that EPA's smaller laboratories should not be placed in the same category as large chemical plants with large volumes of volatile substances. They agreed that there should be no "short cut" to safety; nonetheless, they believe that there are times OSHA designations are too restrictive and under certain conditions lead to inefficient operation.

Some laboratory directors claim that general manpower ceilings force laboratories to get rid of lower grade support or service type personnel in order to maintain a full range of scientific expertise in the internal force mix so as to be responsive to the laboratory mission. Due to the lack of support personnel, higher grade scientists are required to perform contract monitoring, clerical functions, and routine laboratory chores, and to spend valuable research time in laboratory setups, cleanups, and routine data recording that normally would be assigned to lower grade technicians.

Directors stated that the end result of these activities was a loss of the full utilization of scientific expertise and an inordinate amount of time being spent in administering a manpower requirement mandate that was essentially unmanageable.

IV. EPA LABORATORY FACILITIES

The appendix contains a listing of the 50 EPA laboratory facilities, their location, and the number of employees. In addition, the number of square feet of laboratory, administrative, and other space is set forth.

The following is a summary of this data as of December 31, 1974:

Laboratory	745,135 square feet
Administrative	559,350 square feet
Other	325,502 square feet

Personnel as of December 31, 1974:

Professional	1,826
All other	2,070

The Investigative Staff, due to the time factor, limited its site visits to 21 selected laboratory facilities at 10 locations where expenditure of appropriated funds or budget requests for major modifications or new facilities are planned.

A. National Environmental Research Centers

1. Research Triangle Park, North Carolina

The National Environmental Research Center-Research Triangle Park (RTP), North Carolina, has the primary responsibility for the conduct and management of research and related activities pertaining to air pollution. In addition, the Center has responsibility for carrying out research in the fields of pesticides and radiation. EPA officials advised that RTP was the largest laboratory facility in EPA with approximately 1200 employees, 650 of which are laboratory personnel. There are also another 260 contract or

temporary employees, visiting scientists, and other government employees at RTP. They currently occupy 13 separate leased locations containing approximately 415,000 square feet of space.

GSA officials advised they are currently negotiating a 5-year lease for EPA with the Beaunit Corporation for the entire Beaunit Research Laboratory building located in RTP and containing 114,000 square feet of space.

EPA officials advised that this space will enable EPA to reduce the number of leased buildings to 11 and will provide them with an additional 98,000 square feet of space.

These officials stated that some of the increased space will be utilized by 220 contract employees and the remaining space by an additional 50 EPA employees authorized under new legislative responsibilities in the health effect programs. It is the opinion of these officials that having some contract employees on site allows for better monitoring and closer control over the contractor.

The headquarters building of EPA-RTP, which contains approximately 210,000 square feet of space, is under lease to the Government until 1990. Although built to Government specifications in 1970, a recent in-house study disclosed there were serious safety deficiencies under today's EPA and OSHA high hazard laboratory standards. As a result, EPA has limited its present use to non-hazardous laboratory and administrative operations.

EPA officials advised that their long-range space plans are to construct a new research center on a 44-acre site located within a 509-acre tract donated by the Research Triangle Foundation to the Department of Health, Education and Welfare (DHEW). The Research Triangle Foundation, which administers the Research Triangle Park, is a non-profit organization. The 509-acre tract was donated by the Foundation to DHEW, subject to a reversionary clause

if facilities were not constructed thereon within a specified period of time. In June 1974, at the request of DHEW, the Foundation extended the time to June 1977.

DHEW officials advised that they plan to utilize the donated land to build a facility to house the National Institute of Environmental Health Sciences (NIEHS). At the present time, the Institute leases facilities consisting of 110,069 square feet of space in Research Triangle Park. Presently, 2 architect and engineering contracts have been awarded; one for the building design and another for the site preparation, power plant, utilities and warehouse facilities. These plans would include provisions which would allow a planned new EPA facility to tie into these basic utilities.

In response to questions by the Investigative Staff, an EPA official advised that, if NIEHS did not proceed with their RTP project, then EPA would have to reevaluate their plans for a new facility, because of the added funds which would be necessary for site preparations and utilities. A DHEW official stated that NIEHS has no construction funds for their project and final determination as to construction and/or lease has not been made.

A DHEW official advised that the current estimate for the new facilities for NIEHS at RTP is $67.5 million. An EPA official advised that the current estimate for their new facilities at RTP is $43.5 million. These officials added that these figures included laboratory casework, but did not include the cost of scientific equipment.

According to EPA officials at RTP, $2.0 million in appropriated funds from prior fiscal years are available for the planning costs of the new facility, including the architect and engineering contract; however, they were instructed by EPA Headquarters that these funds not be expended until completion of the study by the Investigative Staff.

An official of the Beaunit Corporation advised that economic factors have caused the termination of their research activity at RTP. Consequently, it would appear that the government at this time is in a good position to extend the 5-year lease currently under negotiation to a long term lease of Beaunit Research Laboratory facilities at RTP.

It is the opinion of the Investigative Staff that no funds should be expended at this time for the design of a new EPA facility at RTP; that EPA should consider negotiating for a long-term lease of the Beaunit Research Laboratory; and the $2.0 million in available funds be utilized for any required alterations if a suitable cost effective lease can be negotiated.

2. Cincinnati, Ohio

At Cincinnati, EPA is in the final stages of completing a new $26.0 million laboratory facility which should be ready for occupancy in September 1975. Upon completion, this building will have 350,171 gross square feet of space (199,039 net assignable square feet) and is expected to house approximately 600 employees. EPA officials advised that the original plans for the building called for an occupancy of between 700 and 800 employees. However, in the original plans were certain options that if exercised by EPA would significantly decrease the occupancy capability in the building. These options which were exercised by EPA included: (1) the converting of an entire floor to animal facilities; (2) converting one-half of a floor to a pathogenic suite; (3) a high bay area.

The animal facilities option exercised to accommodate EPA's health effects experiments reduced the occupancy capability by 75-100; the pathogenic suite option reduced the number by an additional 35-50; and the high bay area by another 35-50 employees.

EPA officials advised that currently there are 576 permanent and 60 temporary employees located in Cincinnati. Included in this figure are 69 employees of the National Field Investigation Center (NFIC); however, (as set forth previously), in November 1974, the Director of the NFIC at Cincinnati was informed that based on a decision of the Office of Management and Budget (OMB) regarding personnel cutbacks, EPA officials determined that the NFIC, Cincinnati was to be abolished and all personnel and positions were to be phased out by September 1975.

Approximately 35 pesticide laboratory positions are scheduled to be transferred from the Washington, D. C., area to Cincinnati by Summer 1975. In addition, 35 of the 97 positions contained in the recent Safe Drinking Water Act have been designated for Cincinnati.

One laboratory director advised that, if he received some designated positions under the Safe Drinking Water Act, he would be able to utilize the expertise of some of the NFIC employees whose positions were being abolished.

EPA currently occupies 259,877 square feet of space in 7 buildings in Cincinnati. On completion of the new building, EPA will vacate 5 of the 7 buildings. The 2 buildings being retained are both federally owned; the Taft Center (87,316 square feet) and the Center Hill building (11,168 square feet). The Center Hill building is being retained for a special program involving the use of animals in automobile emission tests. The Taft Center with space for approximately 300 employees will be retained as a multi-purpose facility. It will house approximately 80 EPA employees; and in addition, EPA is negotiating with the Food and Drug Administration (FDA) for some of the remaining space. FDA currently has 25 employees in the building and is considering transferring another 100 employees from Washington, D. C., to Cincinnati.

A DHEW official advised that the National Institute of Occupational Safety and Health (NIOSH) has approximately 391 employees in the Cincinnati area. Present plans are to take over the EPA leased facility at Ridge Road to house 270 employees and the remaining employees will be located in a federally owned building in downtown Cincinnati. According to this official, NIOSH has requested land for a new $20 million facility adjacent to the new EPA facility on the campus of the University of Cincinnati. NIOSH officials stated that the need for a new facility was based upon projected growth of programs which are expected to increase personnel strength in the Cincinnati area to over 500 by 1978.

It appears to the Investigative Staff that there will be adequate and available space in the Taft Center to house any "projected growth" of NIOSH. This would negate another multimillion dollar facility on the University of Cincinnati campus. It is also noted that EPA has requested $825,000 in the FY 1976 budget to bring the Taft Center up to EPA and OSHA safety standards. The Investigative Staff believes that, prior to expenditure of these funds, a complete space program dependent on tenant activity should be prepared.

In addition to the EPA activities in Cincinnati, there is a fish toxicology laboratory located in Newtown, Ohio, a few miles away. This laboratory is a field station of Duluth, Minnesota, which is an associate laboratory of the NERC-Corvallis, Oregon. The Duluth laboratory also has a similar field station in Corvallis, Oregon, known as the Western Fish Toxicology Station.

The Newtown Laboratory is adjacent to the site of a state fish hatchery. EPA officials advised there are 11 employees occupying 6,000 square feet of space, including 5,200 square feet of laboratory space. These same officials advised they have $390,000 in appropriated funds for a new "wet lab,"

which is described as a room having fish tanks and open water drains to handle water spills. The new "wet lab," which would be built as an extension to the existing facility, would provide 5,000 square feet of space, representing an increase of almost 100 percent.

An EPA official stated that in his opinion, it is doubtful that sufficient program requirements exist or could be developed to justify any new construction or increase of space at Newtown. He indicated that there are no additional employees scheduled to be transferred to Newtown and that the present space was more than adequate for the on-going programs and the present number of employees. This opinion would support the observations of the Investigative Staff that the present facility was not fully utilized.

In addition, EPA Headquarters officials questioned the need for any expansion of the Newtown Field station,and as previously set forth in this report, will conduct a study to determine the need for continuing this facility. If it is determined that there will be no expansion or that the facility can be abolished, the available funds would be reprogrammed for other authorized projectes.

The laboratory director at Newtown advised that there are new "wet laboratories" at Duluth and Corvallis specializing in water quality standards for fresh water. The programs at Newtown are designated by the headquarters laboratory at Duluth.

The Investigative Staff doubts that justification exists for expansion of this facility and believes that it is an unnecessary duplication of existing facilities. EPA should consider consolidation of the personnel and programs of the Newtown facility with Duluth and/or Corvallis.

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3. Las Vegas, Nevada

The National Environmental Research Center, Las Vegas, Nevada, (NERC) was first set up by the U. S. Public Health Service in 1959 as a radiological health laboratory. One of its main functions at that time was monitoring radiation in the environment around nuclear testing sites for the U. S. Atomic Energy Commission. When EPA was formed, the Las Vegas laboratory became part of the new agency. NERC-Las Vegas has the research theme of environmental monitoring and its programs are designed to devise methods and systems for environmental monitoring and adapt them to meet the needs of EPA's Regional Offices and the states. The Center also provides direct monitoring support to EPA's programs nationwide.

The NERC-Las Vegas occupies 4 leased and 1 Government owned building on the campus of the University of Nevada at Las Vegas. The existing 10-year initial lease on the EPA complex ends on June 30, 1976. According to an official of EPA, the cost to the Government for this lease was $233,700 per year plus up to $31,000 for maintenance; however, as of February 1975, the University has offered EPA a 10-year extension of their lease for $85,000 per year plus up to $31,000 per year for the maintenance fee. The difference in the lease costs was attributed to the University of Nevada having amortized the building costs in the initial 10-year lease.

To support EPA programs nationwide, as well as at Las Vegas, EPA has a fleet of 11 aircraft of different types. These aircraft are based and serviced in hangar space leased by EPA at McCarran International Airport. Because of ideal weather conditions on a year round basis, almost all repairs, service, and maintenance can be conducted outside the hangar on the apron parking area. As a result, hangar space has been held to a minimum. Additionally, due to the Center's support of air monitoring nationwide, some of the

aircraft are in various sections of the United States flying support missions for the various Regional Offices or other NERCs.

According to an EPA official, the hangar space needs some improvement to meet OSHA and EPA standards and the parking apron around the hangar needs some improvement to accomodate the necessary maintenance on the aircraft. Approximately $86,000 is necessary to improve the hangar space, including the installation of a sprinkler system; and authorities of Clark County, where the airport is located, have advised EPA officials they will pave 23,300 square feet of apron parking surrounding the hangar for $11,300.

Responding to an inquiry regarding EPA's possible contracting for their aircraft requirements, an EPA official stated all of their aircraft are obtained from the military for very little cost and their operating costs are much lower than they would be through a private contractor.

The Investigative Staff is of the opinion that the anticipated expenditure of funds at the NERC-Las Vegas complex and hangar space are reasonable and justified.

4. Corvallis, Oregon

The National Environmental Research Center (NERC), Corvallis, Oregon, is located in a federally owned facility adjacent to the campus of Oregon State University (OSU). It is the headquarters for 9 associate laboratories and 5 field stations located throughout the United States. Two of the associate laboratories, the Pacific Northwest Environmental Research Laboratory and the National Ecological Research Laboratory, are co-located in this facility.

This facility is a modern 2-story building containing approximately 40,000 square feet of space of which 13,000 square feet is laboratory space. As a result of expanding programs, it has been necessary to utilize 21 mobile

trailers containing 14,986 square feet of space. These trailers, located at the rear of the NERC, are primarily used for administrative purposes and the vacated administrative space in the main building is being converted into a needed laboratory space.

The Director of the National Ecological Research Laboratory advised that, in addition to space in the NERC, he also occupies 26 percent of a greenhouse owned by the Agricultural Research Service, U. S. Department of Agriculture (ARS-USDA). The greenhouse is located near the NERC on the OSU campus.

The Director of the ARS laboratory informed the Investigative Staff that expanding programs of ARS and EPA have resulted in overcrowding which has caused delays in some projects until a temporary shelter is put up at the rear of the greenhouse.

An EPA official in Corvallis advised that EPA currently has $500,000 in funds from prior year appropriations for the construction of a new greenhouse However, they were requested to withhold expenditure of these funds until completion of the study by the Investigative Staff.

The overcrowding was evident to the Investigative Staff. The director of the EPA laboratory advised there were no other available greenhouse facilities either in Corvallis or at other EPA facilities where his program could be conducted. He also pointed out that the location of his laboratory in Corvallis benefits and is complemented by the NERC, ARS, the University, and an EPA pesticide station also located on the OSU campus.

It appears to the Investigative Staff that a new greenhouse is required at the NERC-Corvallis if current and future program responsibilities are to be met.

Gulf Breeze, Florida

The EPA laboratory facility, Gulf Breeze, Florida, an associate laboratory of the NERC-Corvallis, Oregon, is situated on a small man-made island in Escambia Bay. This facility was formerly part of the Bureau of Commercial Fisheries, U. S. Department of Commerce and specializes in pesticide related research on estaurine organisms. There are 10 buildings, mostly one-story without basements. The main building is a two-story wood frame building built at the turn of the century. Some others were built in the "thirties" and a few small concrete buildings are of recent vintage.

A recent safety study by EPA and OSHA at Gulf Breeze, Florida, disclosed the need for a building to house a high hazard laboratory and a new "wet laboratory." An EPA official clarified the term "wet laboratory" as it refers to the Gulf Breeze facility as being not a wet chemistry laboratory, but rather a "flow through sea water laboratory." This laboratory has a continuing flow of sea water from the Escambia Bay and a series of controls including temperture, filters, fish tanks and other mechanisms permit the conduct of the experimental work. The present "wet laboratory" is housed in a small overcrowded building.

EPA officials at Gulf Breeze advised that $750,000 is available from prior year appropriations for the "wet laboratory" which would also house their high hazard operation laboratory. These same officials advised they were requested not to expend these funds until completion of the study by the Investigative Staff.

The Investigative Staff visited the new "wet laboratory" facility at the Western Fish Toxicology Laboratory at Corvallis, Oregon. The director advised that, without this facility, the scientist/researcher would not have

the safe and adequate space necessary to conduct urgently needed studies, e.g., "nitrogen supersaturation" of salmon.

The Director of the Gulf Breeze facility advised that many of their programs concerning pollutants on estuarine organisms necessary to the development of shrimp, oysters, and other Gulf species have been delayed because of unsafe and inadequate facilities. It was apparent from the visit to both facilities, from safety and program standpoints, that a definite need exists for the approved "wet laboratory" at Gulf Breeze.

B. Program Support Laboratories

1. Eastern Environmental Radiation Facility
Montgomery, Alabama

The Eastern Environmental Radiation Facility (EERF) is located in Montgomery, Alabama, on land leased from the State of Alabama, adjacent to Gunter Air Force Base. It comprises 28 one-story buildings, generally of wood, without basements, in very close proximity to each other. There are a few prefabricated type metal buildings.

The EERF is primarily responsible for determining the impact of radiation on the environment of the Eastern half of the United States. This responsibility includes providing technical assistance to the radiological health programs of state and local health departments as well as Federal agencies.

As to the necessity of the geographical location of this facility, the laboratory director advised that the Southeastern part of the United States has many sources of radiation from existing nuclear power plants and there are many more under construction.

He stated there are 50 nuclear power plants in operation within the United States, 58 more are under construction and another 100 are in the planning stages. In addition, over 90 percent of the plants are in the Eastern

half of the United States and over 50 percent of these are located in the Southeastern area. He also noted that a large nuclear fuel fabricating facility is under construction in Alabama.

In July 1974, the EPA facility management branch conducted a survey of the EERF to ascertain existing deficiencies for the on-site high hazard use laboratories. The result disclosed many deficiencies which indicated a hazard evaluation from ordinary to severe. The survey recommended: (1) that a temporary non-combustible structure be erected on site at an estimated cost of $50,000 which would house a high hazard operation laboratory; (2) that permanent new space be acquired in the Montgomery, Alabama area at an annual lease of $900,000 and: (3) new and additional laboratory equipment be provided at an estimated cost of $300,000.

EPA officials advised that present plans are to request the $1.2 million in the FY 1977 budget.

The Director of the EERF advised he had received an informal solicitation from Auburn University, Montgomery, Alabama, in February 1975, concerning space for the EERF. The solicitation stated that for a 20-year lease the University would provide 50,000 square feet of space at $8.00 per square foot, excluding utilities, or an annual rental of $40,000. The University further indicated the facility would be located on the campus and all space would meet the safety requirements of EPA and OSHA.

Prior to receiving this solicitation, EPA officials in Washington, D.C., stated that their FY 1976 budget would contain a request for $900,000 to be used for leased space for the EERF in Montgomery, Alabama.

The present facility contains approximately 43,000 square feet of space, including 3,000 square feet of unused animal pens. The laboratory director

advised that, based upon their present programs, only 40,000 square feet of space would be required; however, this would not provide any space for expansion.

The Investigative Staff recognizes that some immediate corrective measures are necessary at this facility; however, it does not appear that EERF requires 50,000 square feet of space to house their operation or perform their work.

The Investigative Staff suggests that the EPA facility management branch review the actual space requirements of EERF and then discuss possible lease arrangements with Auburn University. Any action with regard to the request for $900,000 to lease additional space in Montgomery, Alabama, would be held in abeyance pending the outcome of the discussion of lease arrangements with Auburn University.

2. Mississippi Test Facility
Bay St. Louis, Mississippi

The Mississippi Test Facility (MTF) is a National Aeronautics and Space Administration (NASA) owned site where the following EPA laboratories are located:

a. Regional Laboratory

b. Pesticides Monitoring Laboratory

c. Pesticides Chemistry Laboratory

The Regional Laboratory, with 13 laboratory personnel, is organizationally structured under the EPA Regional Director, Dallas, Texas. EPA officials advised that, at the present time, there is no Central Regional Laboratory (CRL) in Dallas, Texas, but future plans call for a consolidation of the laboratories from Houston, Texas, and MTF into one CRL in Dallas, Texas.

The 2 pesticides laboratories report to the Office of Pesticide Programs, under the Assistant Administrator for Water and Hazardous Materials in

in Washington, D. C. All space utilized by these laboratories is leased from NASA.

In response to a question by the Investigative Staff, the laboratory director stated the type of work being performed by the 23 employees of the Pesticides Monitoring Laboratory and the 8 employees of the Pesticides Chemistry Laboratory at MTF is not unique to that geographical area. It could be assimilated and performed at other facilities where there is adequate space.

An EPA official advised that in their FY 1976 budget, $325,000 is being requested for the installation of a sprinkler system and other modifications to meet EPA and OSHA safety requirements at MTF.

The Investigative Staff questions the expenditure of these funds when it appears that suitable space will be available at other EPA facilities, particularly the Taft Center building in Cincinnati, where EPA plans to transfer 35 pesticide positions from the Washington, D. C., area in the Summer of 1975. Also, in view of future plans for consolidation of regional laboratory activities into a Central Regional Laboratory in Dallas, Texas, this expenditure would not seem fiscally wise.

C. Regional Laboratories

1. Athens, Georgia

The Regional Laboratory for Region IV, Atlanta, Georgia, and the Southeast Environmental Research Laboratory jointly occupy a Federally owned building in Athens, Georgia. During a tour of the building, the Investigative Staff observed overcrowded working conditions with some programs of the laboratories having been placed in mobile trailers and quonset-type buildings nearby.

EPA officials advised they have been looking for suitable space at Athens to house the Regional Laboratory, but to date, they have been unable to locate the type of building necessary for their operation.

In this connection, EPA officials advised that the Department of Agriculture was contacted in February 1974, relative to available space at the Russell Research Center which is located directly behind the EPA facility in the same complex.

In response to their inquiry, EPA was advised by the Department of Agriculture in April 1974, that a small amount of laboratory space was available on 3 different floors of the Russell Research Center; however, they said its availability to outside agencies would be very short termed.

An official of the Russell Research Center advised the Investigative Staff that as of February 11, 1975, there was only 627 square feet of office space and 1,780 square feet of laboratory space available at the Center.

According to an official of the Regional Laboratory at Athens, Georgia, the University of Georgia informally approached EPA in February 1975, with an offer to construct a facility up to 20,000 square feet, having a fifty-fifty mix of office and laboratory space. This facility would be constructed to meet all safety standards required of both EPA and OSHA at a cost of approximately $7.00-$8.00 per square foot, including utilities, based on a 10-15 year lease.

EPA officials advised they are requesting in their FY 1976 budget $650,000 to obtain suitable leased space for a Regional Laboratory at Atlanta, Georgia. An EPA official remarked that, if the Regional Laboratory was transferred to Atlanta, Georgia, some administrative benefits would be realized because there would be better communications with the Regional Administrator

and their data processing facility and operation would be centralized. As a result of this centralization, the computer system could be utilized full time. Another benefit to locating in Atlanta is the easy access to airport facilities. However, he believed that being located in a research complex next to the University of Georgia campus at Athens, Georgia, in close proximity to another EPA laboratory, would have far greater benefits at the laboratory level. He also pointed out the additional cost factors in transferring a laboratory to Atlanta as well as a higher cost per square foot for special purpose leased spaced in Atlanta.

A GSA official advised that the current rate for special purpose or laboratory space in downtown Atlanta, Georgia is approximately $12.00-$15.00 per square foot, and for suburban Atlanta, it is $10.00 to $12.00 per square foot. Another problem, according to this official, is the fact there are strict zoning laws in the Atlanta area limiting the use of high hazard materials.

The Investigative Staff suggests that the Regional Laboratory remain in Athens, and that EPA pursue the informal offer made by the University of Georgia to provide the needed space for the Regional Laboratory.

2. Chicago, Illinois

The Chicago Regional Laboratory of EPA is located at 1819 West Pershing Road, the site of a former U. S. Army Quartermaster Depot, vintage World War I. It consists of 3 identical warehouse-type buildings each containing approximately 450,000 square feet of space. The buildings are operated and maintained by the General Services Administration (GSA).

EPA occupies approximately 33,000 square feet of space in Building B of this complex and is the only tenant at this time. The laboratory director advised that GSA plans to consolidate all the Federal activities now housed

in the 3 buildings into 1 building and to declare the other 2 buildings surplus to the needs of the Government.

EPA officials advised that $2 million has been appropriated in previous fiscal years to remodel space for a new laboratory at the Pershing Road site. However, they had been requested to withhold expending these funds pending the results of this report.

On March 25, 1975, a GSA official advised that a decision was reached that no EPA funds be expended for remodeling the facility at Pershing Road. He pointed out that they are designating a recently remodeled Federal building at 536 South Clark Street, Chicago, Illinois, as a "special use" (laboratories and computers) building and are negotiating with an A&E firm to prepare the necessary plans to house the EPA Regional Laboratory at that location. The GSA official advised that this action will result in the required space being available in a shorter period of time and at a substantial savings to the Government. The Investigative Staff concurs with this action.

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ENVIRONMENTAL IMPACT STATEMENTS

Mr. BOLAND. Getting back more specifically to your justification material on page ARM–7, why do you rely heavily on consultants to prepare your environmental impact statements? What is the cost comparison with an in-house effort?

Mr. ALM. The reason is simply that the kinds of work that need to be done on environmental impact statements tend to be very specialized. The kinds of issues that come up are destruction of wetlands, perhaps damage to aquifer recharge zones. These are areas where EPA does not have extensive in-house competence. Our total staff for environmental impact statements is only 50 now. It will only be 64 in 1976. So a combination of those factors leads us to the conclusion that it would be desirable to have the private sector heavily involved in the development of the environmental impact statements.

Mr. TALCOTT. Do you have a cost comparison between the in-house effort and the consultant method?

Mr. ALM. I can provide one for the record but I think it would be fair to say that the consultant method would be somewhat more costly although not significantly. But again many of the kinds of expertise we need we simply don't have available.

Mr. TRAIN. This may be technical, but I believe these are contract jobs and not consultants. My impression is that if we tried to do all this in-house it would be exceedingly more expensive.

I think that bears out Mr. Alm's point that we are required under various rules applicable to the environmental impact statements to have all sorts of expertise reflected in those statements. I am thinking more recently of the requirements of the National Historic Trust Preservation Act. Maybe that is not exactly its name, but this would require us to keep in all of our regional staffs a historic preservation expert to comment on possible archeological sites that are being disturbed by sewage treatment plant location. Obviously it makes more sense to contract out on a case-by-case basis than is necessary to maintain that capability.

AUDIT ACTIVITIES

Mr. TALCOTT. You are increasing audit activities in 1976. What does this involve? Do you feel this increased effort in audit is timely? Why? What is the cost?

Mr. ALM. It involves an increase of 35 new positions. These will all be allocated to the construction grants program. They will be involved with interim and final audit of construction grants. We expect to obligate about $13.5 billion for construction grants between now and 1977, so that makes it the largest program of this type in the country.

We think it is critical that we assure the financial integrity of this program through a financial audit capability.

Mr. TALCOTT. Why is it timely to do it now? Could it be deferred?

Mr. ALM. No; it could not. The program level right now as I indicated, is at an all-time high. We have done a number of interim audits which indicated a variety of irregularities of some concern to the Agency. We have discussed this with the General Accounting Office and they strongly agree that we need a stronger audit capability.

Mr. TALCOTT. Do you have a cost estimate, an additional cost estimate?

Mr. ALM. The increase would be approximately $700,000 for the 35 new positions.

Mr. TALCOTT. For this year?

Mr. ALM. Yes, sir, for 1976.

ADP SYSTEMS

Mr. TALCOTT. Last year, as you recall, the committee made a careful examination of the usage of automatic data processing equipment in your agency. It held up the proposed purchase of a Univac 1110 at a cost of $5 million until after necessary feasibility, cost/benefit, staffing, communication, and planning studies to support the procurement had been made.

Recently the committee was advised that these conditions had been met and that you were prepared to exercise the purchase option while it is still open. Can you bring us up to date on what has been done in this matter and what you are doing in terms of new information systems in 1976?

Mr. ALM. Yes, sir.

Mr. TALCOTT. Now obviously we would like to have this in considerable detail. I think we would prefer, if you would do it for the record.

Mr. ALM. I will do it for the record. I would like to make one small comment.

We have developed within the Agency a preliminary 5-year plan for ADP operations. We have established a committee of the Assistant Administrators, the highest level of management under the Administrator and the Deputy Administrator, which meets regularly to consider the implementation of this plan, so you can see that we are giving a great deal of management attention to ADP activity within EPA.

[The response follows:]

ADP MANAGEMENT ACTIVITIES

COORDINATED ADP PLAN

During the last year, EPA has developed a comprehensive 5 year plan for the management and utilization of its computer resources. In order to develop this plan in time to meet the deadline for the purchase of the Univac, the Agency contracted with a consulting firm, Index Systems, to support and augment its in-house effort. This plan consists of a series of coordinated actions to take place over the next 5 years in the areas of systems development, hardware acquisition, personnel utilization, and management control. The full ADP plan contains a detailed discussion of the rationale and impact of each action. The Agency is now evaluating the specific recommendations in the plan. While individual recommendations may not be implemented precisely as stated in the plans, we are confident that substantial real savings can be effected in the next 5 years by adhering to the basic principles of this plan.

PURCHASE OF THE UNIVAC 1110

One of the plan's principal recommendations is that we exercise our option to purchase the Univac 1110 computer system being leased at Research Triangle Park, N.C. After a full examination of all the relevant factors, we concurred in this recommendation and exercised our option to purchase on May 2, 1975. While the full purchase price was approximately $5 million, rental credits and other

special discounts brought the net outlay requirement down to $1.9 million. These funds were made available by reprograming existing funds within the Agency into the ADP account.

OTHER RECOMMENDATIONS OF THE PLAN

Other key recommendations in the plan call for a series of staged actions affecting the development, design, and operation of the Agency's systems. Fourteen major systems or groups of systems are directly affected by these recommendations. For example, there is a recommendation to separate the general point source file (GPSF), a sophisticated system for monitoring water enforcement and compliance actions into two distinct systems—one to support the compliance tracking requirements of the Office of Enforcement, and the other to meet the water program requirements of the Office of Water and Hazardous Materials. Several systems have been identified in the plan as marginal. These systems will be carefully reviewed to determine if they can be eliminated in fiscal year 1976. Other ADP applications, such as word processing, would lose their ADP fund support. Detailed planning studies are proposed also for Office of Planning and Management, Office of Research and Development, and Office of Enforcement, and General Counsel to consolidate and streamline existing systems and procedures and to coordinate the development of new systems for enforcement tracking and scientific research, especially in energy-related areas.

We have established a steering committee composed of Assistant and Regional Administrators who will review each of the recommendations and implement them, as appropriate. We believe the formation of this group will assure greater awareness and involvement by the Agency's top management in the control and utilization of ADP resources. Over the next year to 18 months the members of the committee and their staffs will study each recommendation in depth and decide how it should be implemented. A number of these studies are now underway.

IMPLEMENTATION OF THE PLAN

The separation of GPSF into two systems has been accomplished. A permit compliance system has been designed and currently is being tested in Chicago. A general point source inventory for the Office of Water and Hazardous Materials will be developed during the remainder of this year and the beginning of next. The replacement of one system with two less elaborate ones is expected to save funds. An evaluation of our use of word processing resources, and studies to determine whether marginal systems should be eliminated are also underway. An examination of whether or not two of the Agency's largest technical information systems, STORET and SEAS, should be moved to the data center at Research Triangle Park is scheduled for the first half of fiscal year 1976.

PLANS FOR FISCAL YEAR 1976

During fiscal year 1976, the Agency expects that several new information systems will be developed. Two systems, one in the enforcement area and the other for scientific research, will be a direct consequence of the recommendations in the coordinated ADP plan. The other major new system will be developed to fulfill the information requirements of the recently enacted Safe Drinking Water Act. In the case of the two systems recommended in the plan, detailed information requirements will be developed in the first part of fiscal year 1976, and a feasibility study will be conducted before any systems development work begins. With respect to the safe drinking water system, a feasibility study has been started and should be completed by December 1975. Assuming that the feasibility studies for these systems justify their need and estimated cost, they will not be operational until the first of fiscal year 1977.

CONTROL OF NEW SYSTEMS

EPA plans to control the establishment and growth of these and other information systems through a program of feasibility studies and systems evaluations. Before a new system may be developed or an existing one modified, a feasibility study must be performed if the annual operating cost is $20,000 or more. The feasibility study must: establish a clear comprehensive justification of the need

for a system, describe several alternative approaches, and perform a cost-benefit analysis for each alternative. The feasibility study will be used by management in deciding whether to develop the system or not based on the systems costs, benefits, and relative priority among other systems competing for resources. In addition to these studies, evaluations of existing systems will be performed from time to time. The purpose of these evaluations is to determine if the needs for which the systems were originally established still exist, what new ones exist, and if the system is satisfying them in a cost-efficient manner. In this way, we hope to identify and eliminate systems that have outlived their original purpose and to ensure that all others are still responsive to the Agency's management needs.

NEW CINCINNATI FACILITY

Mr. BOLAND. Explain the proposed move to Cincinnati, what is involved, the reasons and the cost of this move.

Mr. ALM. EPA has occupied a number of separate locations in Cincinnati for a number of years. In November 1972, I believe, we began construction of a $27 million building. That facility will be complete in the fall of this year. This will provide us with about 200,000 square feet that will house approximatey 590 staff in the Cincinnati area or new functions moved into Cincinnati.

Mr. TALCOTT. Is that comparable to the Commerce Building here in town or the Rayburn Building?

Mr. ALM. No. It is a good deal smaller than either and a good deal less expensive, I might add. In addition we own another building in Cincinnati, the Robert Taft Center.

We would continue to house about 150 of our staff in that center and probably would negotiate with the Food and Drug Administration to share the building with them.

Mr. TALCOTT. All right.

BUILDINGS AND FACILITIES

Mr. TALCOTT. Continuing on with "buildings and facilities," place page BF-1 in the record.

[The page follows:]

Buildings and facilities

Budget authority—Buildings and facilities:	*Amount*
1975	$1,400,000
1976	2,100,000
Increase or decrease	+700,000

PURPOSE

This appropriation covers the design and construction of new EPA-owned facilities as well as necessary repairs and improvements to federally owned installations which are occupied by EPA. Modifications and repairs to leased facilities, to the extent that they are paid for directly by EPA, are covered under the agency support activity under the agency and regional management appropriation.

1976 PROGRAM

Plans for 1976 do not contemplate the construction of new facilities or major expansion of existing facilities and are limited to necessary repairs and improvements. Requirements are based upon a recently completed survey of the physical condition of EPA facilities and are limited essentially to projects identified in this review as being necessary to protect the health and safety of EPA employees so as to meet standards set by the Labor Department under the Occupational

Health and Safety Act. Other projects, including those needed to protect the government's investment in these facilities or to improve their utility for program operations, are to be deferred and will be undertaken in 1976 only if an urgent need develops.

The work to be carried out in 1976 involves 18 specific projects at 11 locations. Included are items such as the installation of fire suppression systems; providing safe storage for hazardous materials; replacement of defective wiring; upgrading of laboratory heating and ventilation systems; changing the direction of door swings; replacing stairs and installing safety railings; and installing fire hydrants.

REPAIRS AND IMPROVEMENTS

Mr. TALCOTT. The appropriation request for buildings and facilities is $2,100,000. This is an increase of $700,000 over the $1,400,000 of last year, and is entirely for necessary repairs to present facilities.

Mr. ALM. That is correct.

On the total amount of $2.1 million, $1.6 million of that is to meet OSHA standards. The other $500,000 is to meet other safety standards.

Mr. TALCOTT. And you consider the OSHA mandatory?

Mr. ALM. Yes, sir, we do.

Mr. TRAIN. These are regulatory agencies.

Mr. TALCOTT. Are they really miserable people to deal with?

Mr. TRAIN. Some are on occasion.

Mr. TALCOTT. These requirements are based on a recently completed survey as indicated on page BF–1. Can you tell us about this and its recommendations?

Was it conducted in-house or by contract?

Mr. ALM. It was conducted by the Insurance Company of North America. They looked at all EPA facilities in terms of health and safety aspects and on the basis of their reports we're making these corrections.

Mr. TALCOTT. Does this request fully reflect its recommendations? What is the total picture of your needs?

Mr. ALM. The total picture is reflected both in these repairs and improvements and, in many cases, in moving into new facilities.

In other words, the facilities are so far from the standards that we are forced to move into a new facility. For example, in California, the Alameda facility in the San Francisco Bay area is one that is unsafe.

We are negotiating with GSA to find suitable office space in that area.

Mr. TALCOTT. Why is it unsafe?

Mr. ALM. There is a wide variety of problems. I gather that it does not have the provisions for dealing with dangerous chemicals. I believe there are a number of fire hazards. I know there are ventilation problems.

OMB REQUEST

Mr. TALCOTT. That sounds bad enough. What was requested of OMB for this item?

Mr. ALM. For Alameda, it is the same amount as proposed in the budget.

Mr. TALCOTT. Is that what you call level funding?

Mr. ALM. No, sir, level funding usually is used in the context of comparing 1 fiscal year with another reflecting no change.

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REPAIR AND IMPROVEMENT PROJECTS

Mr. TALCOTT. Will you provide for the record a more detailed breakdown of the specific projects in the 1976 program?

[The information follows:]

EPA repair and improvement program

1976 budget proposal

Location and project description:	Estimated cost
National Marine Water Quality Laboratory (Narragansett, R.I.):	
Safety railings and stair replacement—dockhouse and pumphouse	$20,000
Install emergency generator	11,000
Install additional fire hydrant	4,000
Boiler repairs	2,000
Air-conditioner condensers—2 units	29,000
Total	66,000
Pesticides Analysis Laboratory (New York City, N.Y.): Fire suppression system	25,000
Eastern Water Quality Laboratory (Edison, N.J.): Occupational Safety and Health Act modifications	175,000
Southeast Environmental Research Laboratory (Athens, Ga.):	
Replace/relocate roof compressors	20,000
Fire suppression system	50,000
Total	70,000
Gulf Breeze Environmental Research Laboratory (Gulf Breeze, Fla.):	
Replace air-conditioners and heaters	20,000
Fire protection system	30,000
Seawall design	24,000
Roof repair	15,000
Total	89,000
National Environmental Research Center (Cincinnati, Ohio):	
Storm sewer	10,000
Occupational safety and Health Act modification	650,000
Replace light fixtures	150,000
Replace front entrance sidewalks	25,000
Total	835,000
Newtown Fish Toxicology Station (Newtown, Ohio): Repair water reservoir	15,000
Michigan District Office (Gross Ile, Mich.): Occupational Safety and Health Act modification	300,000
National Water Quality Laboratory (Duluth, Minn.): Fire suppression system	50,000
Robert S. Kerr Environmental Research Laboratory (Ada, Okla.): Fire suppression system	50,000
Mississippi Test Facility (Bay St. Louis, Miss.): Occupational Safety and Health Act modifications	325,000
Pacific Northwest Environmental Research Laboratory: hazardous materials storage	50,000
National Environmental Research Laboratory (Corvallis, Oreg.): Fire suppression	50,000
Total	100,000
Grand total	2,100,000

PRIOR YEAR FACILITY FUNDS

Mr. TALCOTT. What funds are still available from prior years for laboratory facilities that are either unobligated or unexpended?

Mr. ALM. I do not have that figure.

I do have the total laboratory program funds for prior years which is either under construction or nearing completion. That figure is $36 million.

I will get the record of how much is unexpended.

Mr. TALCOTT. Can you give us the projects that this covers and amounts and we will place a summary in the record?

[The information follows:]

Unobligated balance—March 31, 1975—available from prior years for laboratory facilities

	In thousands
Research Triangle Park, N.C	$1,900
Narragansett, R.I	2,657
Manchester, Wash	1,800
Gulf Breeze, Fla	688
Denver, Colo	-----
Cincinnati, Ohio	1,244
Newtown, Ohio	358
Beltsville, Md	46
Corvallis, Oreg	500
Total	9,193

CRITERIA FOR REGIONAL LABS

Mr. TALCOTT. The committee has required careful planning and criteria for new laboratory facilities, such as ready accessibility to the regional offices wherever possible. Also that existing laboratory capacity be fully utilized before establishing any new ones. What are your standards and needs for establishing a regional laboratory?

Mr. ALM. In terms of regional laboratories we have, in some form or another, a laboratory in every one of our regions. We have what is called a Surveillance and Analysis Division in each region. These groups are responsible for technical backup to the enforcement and abatement and control programs.

In some regions we have centralized laboratory facilities; in others we have laboratory facilities spread in a number of separate locations.

UTILIZATION OF REGIONAL LABS

Mr. TALCOTT. Are your laboratories like many other laboratories, used only 50 percent of the time?

Mr. ALM. No. Ours are pretty full.

Mr. TALCOTT. Are you satisfied that you are getting full utilization from these laboratories?

Mr. ALM. Yes, we are.

In most of them they are leased. We have to continue to pay the lease cost. We have no incentive to have more space than we need.

Mr. TRAIN. I am probably not the best judge because I am a lawyer and not a scientist or technical person in any meaning of the word. But I have visited practically all of our laboratory facilities in one way or

another in the past year and a half since I have been in the agency. I have been impressed with the high level of utilization and activity at these facilities. I mean that seriously. They are fully utilized. I have never seen any evidence of people being anything other than exceedingly busy and hard-working and some of the activities may be because I am there, obviously.

Mr. TALCOTT. Because when we visit some of these laboratories sometimes we see the same things that we see on computers and telephones and all, they are just not fully utilized. We hope what you are saying is very accurate.

Mr. ALM. I might add that the laboratory report, at least in my reading of the draft, did not mention that EPA laboratories were not fully utilized. Indeed, many of them are severely crowded.

Mr. TALCOTT. What is the situation?

Mr. QUARLES. Crowded and unsafe.

Mr. TALCOTT. At Manchester, Wash.?

Mr. QUARLES. I was not going to say Manchester, but Needham, Mass., is a place where we have a laboratory. If you go up into the attic over the laboratory space which is a very old and dilapidated building, there is a maze of wiring lying there exposed and it is very likely in violation of the OSHA safety standards.

Mr. TALCOTT. But good work is done there.

Mr. QUARLES. Yes; good work is done there, but people are not under conditions that are acceptable.

Mr. TRAIN. I recently visited our laboratory at Annapolis which is a regional laboratory. I asked some questions about the work being done there to provide up-to-date information on the status of water quality in Chesapeake Bay which is our most productive estuary as far as commercial fish in the country, some $200 million a year in terms of fish alone, not to mention recreation. To my considerable consternation, I learned that everybody in that laboratory who had been working on this long trend monitoring has been taken off it. We have nobody now on that kind of monitoring because of the pressures of day-to-day surveillance in connection with enforcement activities with regard to steel plants, municipal plants, drinking water situations. So we are doing none of that long-term monitoring now.

So I am concerned about understaffing, that we don't have the adequacy of personnel and facilities we should have.

MANCHESTER, WASH., FACILITY

Mr. TALCOTT. What is the situation at Manchester, Wash.? Does the present proposal or plan for this laboratory fully meet your standards or requirements; or where is it deficient, and what are the strong points favoring the selected location?

Mr. ALM. We propose to build a 13,000 net square foot laboratory on a site that we currently own.

Funds for the site have already been appropriated. I think the authorization goes as far back as 1967.

Currently we are in a 4,600 square foot facility in the Seattle area called Pier 37. We have 14 people in that facility. It would cost us $1.1 million to renovate this facility to meet our needs while it only would cost us $1.8 million to construct the Manchester facility.

The other advantage of Manchester is that it is close to very high quality water. In addition to 32 regional office people, it would also house 10 people from the R. & D. program so it would be our intention to proceed with the Manchester construction.

Mr. TRAIN. I would like to add on this that I personally hope that we can proceed with that laboratory. I think it is an important facility in that region.

Jim, you might be in a position as the former regional administrator in Seattle to speak to this.

Mr. AGEE. Yes.

As Mr. Alm mentioned, it had very high water quality and more specifically it has very high marine water quality and that is what we desperately needed in that geographic area for many years. A good number of our problems are in the marine environment. We feel very strongly about Puget Sound being very very strong estuarial resource as Mr. Train does the Chesapeake. We feel we have much to preserve there and need that location.

SUMMARY DESCRIPTION OF LABS

Mr. TALCOTT. Would you provide for the record a summary description of all your laboratories and include in that the square feet of space and the employment levels that you proposed for 1976?

Mr. ALM. Yes, sir.

[The information follows:]

THE ENVIRONMENTAL PROTECTION AGENCY LABORATORY SYSTEM

Overall Laboratory System:

The EPA laboratory programs fall into two basic categories: (1) Regional Laboratories which are those that support EPA's operational activities within the respective regions, and (2) National Laboratories whose programs are national in scope and are divided between Research Laboratories (RL) and Program Support Laboratories (PSL). Under the present National Lab concept, the Research Laboratories conduct research which forms the basis of EPA's environmental control effort while the Program Support Laboratories carry out specialized environmental programs such as the testing of motor vehicle emission control systems or national enforcement activities. These roles, while organizationally separate within EPA, complement each other to form a consolidated environmental program.

A description of the Regional laboratories and the National laboratories follows.

Regional Laboratories

One of the major emphases of EPA's organizational design has been the decentralization of functions to the ten EPA Regional Offices. Since establishment of the Agency in December, 1970, the Regions have taken on far greater responsibilities for many activities and have been pursuing them vigorously. Other functions are likely to be decentralized pending the outcome, in the very near future, of a reorganization plan within the Office of Research and Development which will reduce the number of management and administrative layers and provide more responsibility for program direction in the field. To accomplish these two objectives, research management responsibilities that currently reside at the National Environmental Research Center (NERC) level are going to be placed directly at the laboratory level. The administrative, technical and other support functions now provided by the NERC's will be provided by other means depending on the specific situations. In addition, the headquarters staff will be reorganized to provide only one tier of management between the Assistant Administrator for Research and Development and the laboratory directors.

The current Organization Order for EPA's Regional Offices assigns the following functions to the Surveillance and Analysis Division:

(1) Regional Investigations and Fact Gathering. This Mission, which on a continuing basis requires the majority of S&A resources, includes the collection, analysis, and evaluation of environmental data to provide for:

-Overview of State implementation plan progress;
-Compliance and enforcement of Federal Standards;
-Information supporting the issuance of licenses and permits;
-Federal facilities program support; and
-Technical backup to preparers of environmental impact statements.

(2) Special studies supporting National programs including:

-Conduct of one-time environmental surveys;
-Investigative support to set National emission standards;
-Environmental quality progress measurement;
-Modeling to assess compliance efforts; and
-Environmental forecasting based on demographic factors.

(3) Extramural technical assistance to universities, industry, and State, municipal, and other Federal agencies. This assistance includes:

-Advisory services;
-Expert testimony;
-Laboratory evaluation;
-Equipment calibration; and
-Information dissemination concerning standard instrumentation and approved methodology.

Each Surveillance and Analysis Division is further divided into a Surveillance Branch which performs the necessary field work and collects samples to support monitoring, special studies and enforcement action, and a Technical Support Branch which provides physical, chemical, and biological laboratory analyses and other laboratory services; provides technical assistance to state and local laboratories; and provides a source of technical expertise to enforcement actions.

The capabilities which the Regional Offices inherited from EPA's predecessor agencies, or which have subsequently been created, vary considerably from region to region. Some of these variations are necessary and proper and relate to the specific problems faced by some regions, such as the acid mine drainage problems in Region III and the animal feed lot problems in Region VII. Others relate to the variations in need between regions based on such factors as population, geographic area, availability of State and local resources to attack pollution problems, and differences in the industrial and agricultural activities in the regions, such as Regions IV and V, and permit smaller allocations in the smaller regions, such as Region I, VII, VIII and X.

Regional Laboratories

The Primary mission of EPA's Regional Laboratories is to meet the immediate needs of the Agency's regulatory, monitoring and technical assistance roles and to strengthen the regional analytical support to regulatory actions and state technical assistance.

The EPA's Regional and Subsidiary laboratory locations are as follows:

Region I	- Boston, Mass. (Regional Office) - Needham Heights, Mass. (Lab)
Region II	- New York City, N.Y. (Regional Office) - Edison, N.J. (Lab) - Rochester, N.Y. (special lab. for Great Lakes Basin)
Region III	- Philadelphia, Pa. (Regional Office) - Annapolis, Md. (Lab) - Wheeling, W. Va. (Lab)
Region IV	- Atlanta, Ga. (Regional Office) - Athens, Ga. (Lab)
Region V	- Chicago, Ill. (Regional Office and Lab)
Region VI	- Dallas, Texas (Regional Office) - Ada, Oklah. (Lab) - Houston, Texas (Lab) - Bay St. Louis, Miss. (Lab)
Region VII	- Kansas City, Missouri (Regional Office) - Kansas City, Kansas (Lab)
Region VIII	- Denver, Colorado (Regional Office) - Golden, Colo. (Interim Regional Lab)
Region IX	- San Francisco, (Regional Office) - Alameda, Calif. (Lab)
Region X	- Seattle, Wash. (Regional Office and Interim Regional Lab)

National Laboratories

The National laboratories are divided into two distinct categories--the Research Laboratories and the Program Support Laboratories. The National Environmental Research Centers (NERC's - Research Laboratories) are charged with conducting research which supports EPA's environmental mission. There are four (NERC) Centers--one in Research Triangle Park (RTP), North Carolina; one in Cincinnati, Ohio; one in Corvallis, Oregon--each of which has associated laboratories reporting to it. The fourth center in Las Vegas, Nevada has no associated laboratories. Each Center was developed on a "thematic basis" consistent with the expertise and functions available to the Center at the time of its conception. The theme for NERC-RTP is health effects research; for Cincinnati, engineering and control technology; for Corvallis, ecology; and for Las Vegas, monitoring. Although programs are not strictly limited to the themes, each Center serves as a nucleus for an effective research effort.

These National Laboratories were established upon the following assumptions:

- Research laboratories having single-medium, single-pollutant programs often are less responsive to EPA needs than multi-media, multi-pollutant laboratories.

- Some laboratory studies are best carried out only in certain, uniquely-suited geographical locations.

- By consolidating small, fragmented programs having similar research objectives in one central location, the laboratory support becomes more effective and responsive.

- Where feasible, expansion of existing EPA facilities or use of other Federal facilities is preferred to construction of laboratory facilities in new locations.

National Environmental Research Centers (NERC's)

A. Research Triangle Park, North Carolina, is the site of a complex of EPA facilities. EPA is currently leasing space in thirteen buildings; most of them are located in Research Triangle Park and several others are located in Durham and Chapel Hill, N.C. The majority of about 1,380 EPA personnel are located in leased space in the Research Triangle Park, the site of one of the National Environmental Research Centers. Programs in the area, conducted by the Office of Research and Development, the Office of Enforcement, the Office of Air and Waste Management, and a Region IV Pesticides Inspector are designed to develop the scientific basis for control of environmental pollutants adversely affecting human health and welfare and for control of air pollutant emissions from all sources. Program support is provided by the Office of Planning and Management.

B. Cincinnati, Ohio. The first two research center missions of this NERC are to conduct research toward arriving at solutions to a broad spectrum of environmental programs involving air, water pollution and radiation, as well as to perform surveillance and technology assessment of installations using radioactive materials. The complex is composed of eight buildings scattered throughout the city. The majority of the EPA programs and of the staff of approximately 600 EPA personnel in Cincinnati will be consolidated into a new facility, which is scheduled for occupancy in fiscal year 1976. The rest of the programs and associated personnel will be accommodated in the EPA-owned Taft Laboratory facility, with any remaining vacant space in the Taft Laboratory being offered to other Federal agencies.

- Edison, New Jersey - Industrial Waste Treatment Research Lab - an associated lab of the NERC-Cincinnati, develops and demonstrates innovative and advanced techniques for handling a variety of water pollution problems including oil and hazardous material spills, storm and combined sewer overflows, waste discharges of selected industries, waste from vessels and other mobile sources, and wastes at recreational sites.

C. Corvallis, Oregon. This NERC develops the scientific basis for determining the ecological consequences of environmental pollution. This is the location of the National Ecological Research Laboratory (formerly at NERC-RTP), and the Pacific Northwest Environmental Research Laboratory (formerly the Pacific Northwest Water Quality Lab), along with the Lake Survey Program as a component assigned in late 1972. The facility is EPA-owned and is located adjacent to the Oregon State University campus. The EPA-Office of Hazardous Materials Control also has a laboratory at this site which supports the National Program for Pesticides Registration. The associated laboratories under the direction of the Corvallis - NERC include the following:

- Narragansett, Rhode Island - National Marine Water Quality Laboratory - develops scientific basis for setting water quality standards for marine and estuarine waters.

- Gulf Breeze, Florida - Gulf Breeze Environmental Research Lab - deals specifically on effects of pesticides and other toxic organic compounds on marine life.

- College, Alaska - Arctic Environmental Research Laboratory - research on municipal wastewater treatment and effects of pollutants peculiar to cold climates.

- Athens, Georgia - Southeast Research Laboratory conducts four programs: fate of pollutants in fresh waters; agricultural runoff; heavy industrial sources; and methods development for identification of pollutants.

- Corvallis, Oregon - Western Fish Toxicology Station - develops scientific basis and establishment of water quality standards for fresh waters and determine safe pollutant concentrations for fresh water life.

- Newtown, Ohio - Fish Toxicology Station - develop new methodology and techniques involving problems of fish physiology and toxicology.

- Ely, Minnesota - Ely Field Station - conducts research on causes, effects, ecological and physiological control and prevention of eutrophication in fresh water and marine environments.

- Newport, Oregon - Newport Field Station - research methods for preventing pollution in estuaries and coastal waters; chemical and ecological oceanographic studies.

- John's Island, South Carolina - Bear's Bluff Field Station - develop and conducts marine water quality research program.

- Duluth, Minnesota - National Water Quality Lab - establish water quality standards for fresh waters; determine safe pollutant concentrations for fresh water fish, other fresh water life, and wildlife.

- Ada, Oklahoma - Robert S. Kerr Environmental Research Lab - develops the scientific basis for treatment and control of ground-water pollution problems, heavy industrial sources, petroleum production and refining wastes, petrochemical wastes, animal feedlot wastes, irrigation return flows problem, and mining wastes.

- Grosse Ile, Michigan - Grosse Ile - conducts research and technical development studies relating to water quality of the Great Lakes in three areas: large lakes, industrial wastes, dredging.

D. Las Vegas, Nevada. This NERC focuses on the problems associated with environmental monitoring. It consists of three colocated laboratories: Monitoring Operations Laboratory, Monitoring Systems Research and Development Laboratory, and Technical Support Laboratory. These carry out research and development programs in monitoring network design, remote sensing techniques, aerial monitoring, the National Eutrophication Survey, and radiation pathways research. In addition, they provide off-site radiation safety monitoring for NRC nuclear explosives testing activities and quality assurance programs in the field of radiation measurements.

NERC-LV occupies four leased and one Government-owned building on the University of Nevada's Las Vegas campus, leased space in a downtown commercial office building, a leased warehouse on the outskirts of Las Vegas, a leased aircraft hangar facility at McCarran International Airport, and an NRC-owned experimental farm 120 miles away on the Nevada Test Site. A technical support program is also included in these facilities.

Program Support Laboratories

The Program Support Laboratories conduct national programs which are not research-oriented.

EPA operates two field facilities--the Cincinnati and Denver National Field Investigation Centers. Both facilities are under the supervision of the Director of the Office of Technical Analysis in the Headquarters Office. The Centers were established for the purpose of: planning, managing, and directing special water quality enforcement investigations; developing, revising and providing technical interpretation on guidelines for effluent requirements as related to the National Pollutant Discharge Elimination System; and providing consultation and assistance to Headquarters and Regional case preparation and enforcement compliance

monitoring activities. The Centers conduct large scale technical investigations and support activities for the National Water Enforcement Program and provide quick-response technical services in emergency situations. During FY 1975 the two facilities have focused their activities primarily on assisting the Regions in the permit issuance process and in case preparation and on monitoring permits for compliance with their permit conditions.

The space occupied by these Cincinnati and Denver Centers is approximately 30,000 square feet and 34,000 square feet, respectively. Because of the highly technical nature of the facilities' activities, both NFIC's have laboratories equipped to perform complex analytical studies and tests in addition to maintaining specially equipped boats and mobile labs which are used during actual field investigations.

During FY 1975 the Cincinnati Center has begun to be phased out of operation and the Denver NFIC will be renamed the National Enforcement Investigation Center (NEIC). The NEIC will be the principal source of technical expertise and point of coordination for complex technical investigations and support for enforcement activities to EPA and State regulatory programs for air, water, pesticides, radiation, noise, and solid wastes pollution control.

Other Program Support Laboratories include the following:

- Ann Arbor, Michigan - Motor Vehicles Emission Lab - houses the mobile source pollution control programs. The facility, built to government specifications and completed in 1971, is under a 20-year lease. It was designed to meet the laboratory requirements necessary to fulfill sections of the Clean Air Act of 1970. The programs are legislatively mandated and are of high priority.

- Montgomery, Alabama - Eastern Environmental Radiation Facility - this facility performs surveillance and technology assessment of installations using radioactive materials or non-ionizing radiation sources to determine if discharges of radioactive materials or radiation levels are within prescribed standards, including review of environmental impact statements covering the design, construction and operation of proposed facilities which would produce ionizing or non-ionizing radiation.

- Beltsville, Maryland - Agricultural Research Center - site of the Pesticide Programs Office of Hazardous Materials Control performs laboratory services in the fields of pharmacology, chemistry, microbiology, plant/animal biology, and entomology in support of the pesticides standards and criteria setting responsibility of the Agency.

- Washington, D.C. - South Agriculture Building - is the site of a pesticide chemistry laboratory housed in USDA's South Agricultural Building. The laboratory staff performs analyses for establishing safe tolerance levels for pesticide chemicals on raw agricultural commodities. The EPA laboratory is a minor tenant in what is essentially a large office building.

- Bay St. Louis, Mississippi - Pesticides Chemistry Analysis and Monitoring Labs. - perform soil monitoring and analyses for determination and establishment of safe levels of pesticide chemicals.

- New York, N.Y. - Pesticides Lab to support enforcement efforts in Regions I, II, III, and IV.

- Denver, Colorado and San Francisco, California Pesticides Labs. - develop analytical data for use in surveillance and enforcement of regulations for pesticides.

- Corvallis, Oregon - Pesticides Lab. - supports the National Program for Pesticides Registration.

Square Footage

Square feet of space and employment levels that EPA proposed for 1976.

Square Feet	Employment Level
2,045,280	4,463

Scientific Activities Overseas

Mr. Talcott. Going on to scientific activities overseas, place pages SAO–1 through 6 in the record.

[The pages follow:]

Scientific Activities Overseas
(Special Foreign Currency Program)

	1975	1976	Increase or Decrease
Budget Authority			
Scientific Activities Overseas.....	...	$6,000,000	+$6,000,000

Purpose

Scientific Activities Overseas, developed and implemented under the Special Foreign Currency Program, are funded from excess foreign currencies accruing to the United States under various U.S. programs. The use of excess currencies creates a unique opportunity to conduct scientific and technological programs abroad. Their use does not create a balance of payments deficit or contribute to domestic inflation. Under the Special Foreign Currency Program (SFCP), high quality studies that are relevant to EPA's domestic programs are carried out in the participating excess currency countries by outstanding foreign scientists and engineers in conjunction with their counterparts in EPA. Each study submitted for funding under the SFCP is reviewed within EPA and by consultants to insure that the desired results are being achieved. In addition to the achievement of scientific goals, this program serves as an important bridge in maintaining ties with the participating countries. EPA's scientific and technological programs are recognized in the participating countries as visible evidence of U.S. efforts to engage in peaceful endeavors directed toward the development of knowledge and technological advancement specific to our global environment.

Budget Authority

	1976
Poland.....	$3,500,000
Egypt.....	1,000,000
Pakistan.....	500,000
Tunisia.....	250,000
India.....	750,000
Total.....	6,000,000

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Program Statement

The Special Foreign Currency Program (SFCP) enables EPA to utilize unique research and demonstration opportunities in environmental research centers, industries and ecological settings abroad to supplement and/or complement its domestic programs. Environmental studies supported with U.S.-owned excess currencies in Poland and Egypt are providing data that is being used to formulate water pollution, air pollution and other environmental standards and regulations for application in the United States. Further, research proposed by scientists in those countries and in India, Pakistan and Tunisia will enhance EPA's domestic enforcement and regulatory programs. SFCP cooperative activities conducted in the participating countries are based on scientific evaluations of each activity to determine its merit and relevance to EPA's domestic goals. Such evaluation by EPA's scientists and experts is done to insure maximum benefit to EPA from its foreign investment in manpower and funds.

In 1974, $5,400,000 was available for new proposals. Of this amount, EPA obligated approximately $4,000,000. In 1975, the Congress provided no additional funds, leaving only $1,400,000 in carryover funds for support of 1975 projects.

1975 Programs and 1976 Plans

Poland

Polish science and technology is highly respected by EPA scientists and both countries have similar and complementary interests in the environment.

The US-Polish Agreement on Joint Funding of Scientific and Technological Cooperation was signed on October 8, 1974, on the understanding that the equivalent of $10 million in zlotys would be placed into the Joint Fund by U.S. agencies to be used for energy and energy-related research. The Polish government will match this $10 million contribution. Without this additional U.S. contribution of $10 million in zlotys, the Polish government would not have concluded the Agreement.

The United States Treasury agreed to the U.S. agencies placing the equivalent of $10 million into the Joint Fund for energy and energy-related research, subject to availability of funds and provided the additional $10 million for the new energy research is included in the 1976 budget request. In view of the many opportunities for excellent energy-related environmental

research in Poland, $2 million of the $10 million available under this agreement was allotted to the Environmental Protection Agency.

Energy-related projects will focus on research in the following areas:

(1) Identification and quantification of pollutants from a commercial gasification plant;

(2) Investigation of the vortex sieve for dewatering and classification of fine-size coal;

(3) Study of the effects from radioactive effluents from nuclear fuel reprocessing and refabrication operations;

(4) Epidemiological study of the effects of major effluents from high temperature combustion of coal and from coal gasification processes; and

(5) Characterization of effluents and determination of toxicological effects in animals arising from exposure to major effluents from high temperature coal combustion and from coal gasification processes.

Egypt

Cooperative activities between Egyptian and American scientists and technical agencies are most cordial and fruitful and recent diplomatic achievements have strengthened the scientific and political milieu. EPA scientists and experts have developed with their counterparts several beneficial projects utilizing unique Egyptian expertise and settings including:

(1) Development of predictive models simulating major ecosystems on the Western Mediterranean coastal land of Egypt. The results of the Egyptian studies are translatable in terms which are of value to scientists in the southwestern U.S.

(2) An interdisciplinary study of the effects of water impoundment on large river systems (Nile). Results of the Nile River study will be valuable in assessing the environmental impact of dam construction and impoundments in the United States.

(3) A study of the toxicological effects of newly developed

pesticides on plants and animals. It will provide an early warning to EPA concerning the safe use of certain pesticides and enable the U.S. to avoid harmful episodes similar to those that have occurred in Egypt.

(4) An investigation of the effects of newly developed toxicants on man. The study will involve medical, biochemical, chemical, toxicological, epidemiological and pharmacological investigations on exposed individuals and experimental animals. Information that will be obtained from this investigation will be vital to EPA and Egypt by providing evidence to EPA to approve or disapprove the registration of newly developed pesticides proposed for use in the U.S.

The purpose of this project is to monitor the levels of various toxicants in water, soil and agricultural commodities before and after aerial and ground application of pesticides used to control agricultural pests. Establishing the levels of newly developed pesticides in the environment will provide urgently needed information about the persistence of these chemicals which in turn will provide data to EPA and the Egyptian officials to reduce the health hazards to man and animals. This information will also assist EPA in making decisions for registering newly developed pesticides for use in the U.S.

Projects proposed for 1976 include:

(1) Studies of biological alternatives to chemicals in control of agricultural pests;

(2) Investigations of health and ecological effects and movements of pesticides in the environment;

(3) Determination of health effects of bathing and related recreational waters;

(4) Studies of health aspects of sewage irrigation systems;

(5) Studies of the effect of water purification processes on virus removal;

(6) Study of low cost waste water treatment methods including research on improved oxidation ponds;

(7) Studies of water recycling and processing in poultry and canning industries; and

(8) Studies of coastal zone management and water quality protection of a major urban center.

India

Environmental agencies in India have been urged by their government to submit proposals for funding under the SFCP. The Government of India has expressed high-level interest in environmental pollution problems and has submitted a listing of program areas that will be pursued to satisfy Indian priorities and to meet EPA's domestic priorities. Cooperative programs will be developed in such broad environmental areas as integrated pest control; hydrology and water resources; water supply and waste treatment; and conventional and nonconventional sources of energy. EPA will continue to develop multi-disciplinary programs and institutional arrangements that will match the resources of U.S. and Indian environmental research institutions.

Tunisia

Principal activity in Tunisia in 1974 and 1975 has been in support of EPA's cooperative study of eutrophication problems in the Lake of Tunis. This study is intended to define the eutrophication problems, to evaluate the potential benefits of diverting sewage effluence from Tunis and to discover the rate and extent of recovery of the Lake after diversion. Data from the study will permit the development of a predictive model that could be adopted for use in U.S. lakes undergoing eutrophication problems. In 1976, EPA will support research on the effective utilization of stabilization ponds as a means of waste water disposal. The Tunisian government plans to spend several million dollars in the design and construction of stabilization ponds based on recent design studies at the University of California (Berkeley). EPA will support a three year study to measure the effectiveness of these ponds and to determine the validity of the various design criteria in actual practice. EPA will also study the effects of human sewage pollution on sand beaches in Tunisia. The disposal of sewage on beaches presents a potential health hazard in highly developed regions and very little is known about the processes through which these pollutants are dispersed into the environment.

Pakistan

In 1976, EPA will initiate research and applied science programs in Pakistan. Program areas of direct interest to EPA which are also responsive to the massive health related environmental problems of Pakistan have been identified. Control of water pollution is clearly the area of highest priority. Drinking water is a critical factor in human development and health studies will be made to determine the effects of polluted water on the central nervous system. EPA efforts will also place emphasis on problems of water reuse. Other applied programs concerning waste water disposal and protection of ground water supplies will be supported. EPA plans to encourage a study of marine biology in the Arabian Sea, including the role of the polluted Indus River Estuary in the productivity of the Arabian Sea. Studies that have been proposed include:

(1) "Role of Drinking Water in the Developmental Anamolies of the Central Nervous System";

(2) "Disposal of sewage on land for irrigation purposes. Effects of sewage on vegetables and other crops and its effect on the health of human beings and animals";

(3) "Treatment of sewage in rural areas and the disposal of sewage effluent by irrigation";

(4) "The effect of tannery waste disposal on land";

(5) "Health effects of deliberate reuse of water supply, utilizing the Karachi water system";

(6) "The conversion of feed lot and other animal wastes to gaseous fuels (energy) and fertilizer"; and

(7) "Marine biology in the Arabian Sea, and the role of the Indus River Estuary in supporting marine life in the Arabian Sea".

Purpose of Increase

The requested $6 million will permit restoration of the SAO program to its former operating level, as well as allow participation in the special cooperative program with the Polish government.

RESEARCH PROJECTS OVERSEAS

Mr. TALCOTT. You are requesting authority to use $6 million of foreign currencies to support research in five countries. What is the nature of the projects? I was concerned with your jurisdiction. I thought yours was a United States program. Apparently you have some overseas projects.

Dr. TALLEY. I will try to speak to that.

These research projects are proposed and evaluated just as though the American taxpayer were going to pay them. They are judged by the outside peer reviewers as though they were domestic projects. As to the quality of the scientific programs, which are described in the pages in the record, they are at the same level.

Mr. TALCOTT. What is the purpose of having them overseas?

Dr. TALLEY. They are financed with Public Law 480 funds. This way we are using excess foreign currency to get the research we need done.

Mr. TALCOTT. But the same kind of review is made of these proposals as for the ones at home.

Mr. TRAIN. Absolutely, but we are doing things in this program that we are not in a position to do in this country or not as effectively.

For example, we have an opportunity in Poland to make an environmental assessment of commercial scale Lurgi coal gasification plants. Several of these plants are planned for the U.S. but no information is available to set criteria and standards for emissions, and suggest control technology. Near ideal research conditions for human exposure studies exist in Poland, resulting from the combination of a less mobile population with heavy coal combustion and the use of coal gas for domestic purposes. This type of health effects analysis is unavailable in the United States.

In Yugoslavia, to take another example, we are supporting research on copper smelter emissions. This research is providing basic information for establishing new source performance standards for smelters which use ores containing large amounts of valalite metals such as zinc, antimony, and bismuth.

In Egypt, pesticides which are being considered for initial or expanded registration in the United States are being used by the Egyptians quite widely in agriculture. We are able to get excellent information that would be impossible on an experimental use basis in the United States in any short period of time of the environmental health effects of those particular pesticides.

Beyond that, scientific costs abroad tend to be about 20 to 30 cents on the dollar so that we are getting about two to three times as much for our money as we would if we had to hire people in the United States.

Mr. TALCOTT. Why were no funds requested in 1975?

Dr. TALLEY. We did but they were deleted by Congress. I don't remember the particular reason for it.

Mr. TALCOTT. Didn't you have a large carry-over in 1975?

Dr. TALLEY. We had some carryover which permitted the program to continue at a low level, at least those things in process.

Mr. ALM. In 1975 there was $1.4 million available for this purpose. These funds have now been obligated with the exception of approximately $200,000, which is maintained as a reserve to cover unanticipated currency fluctuations and inflation.

Mr. BOLAND. That completes the hearings, the 3 days you have spent with us. We are delighted to have had you. We appreciate very much your responses, Administrator Train. You have been forthright to all the questions that have been propounded over the last 3 days. We appreciate very much the fact that you have a very highly responsible position, one that carries a great deal of responsibility. We want to compliment you on the way you have this agency started. You started from the ground up, practically. There is no doubt about the fact that it is headed in the right direction.

It is a very controversial, complex, and difficult field to operate in. It is our first brush with your staff and we appreciate their competence, Al Alm, Richard Johnson, James Agee, Roger Strelow, and Dr. Talley. We are grateful, of course, for the contribution by your own deputy, who, because he comes from Massachusetts, would qualify for any position in the agency.

We appreciate all your attendance here and your responses. We wish you luck.

As I say, we are conscious of the problems that you have and any way this commitee can assist you in making your task a little easier or less controversial, we will be very happy to do that.

Mr. TRAIN. Mr. Chairman, can I say for us that we have appreciated enormously the very attentive and thorough hearing that you have given us. I think it has been an excellent hearing from our standpoint. We have had an opportunity to raise, from our point of view, every point that seemed useful and desirable.

I would want to emphasize again, since we have been frank with you in talking on specific items of the budget, where our optimum needs would fall, but I would want to emphasize in that context as I did in our opening statement that in my view the budget we have proposed represents a good balance between our needs and other national priorities. So that I would not want anything that I might have said in specific context to be taken as derogating from that. I think we have a fair, well-balanced budget that we have proposed.

I would now like to provide the statements of each of the Assistant Administrators for the record, as I mentioned on Tuesday.

Mr. BOLAND. Thank you very much, Mr. Train.

Thank all of you.

[The statements follow:]

STATEMENT OF ALVIN L. ALM
ASSISTANT ADMINISTRATOR, PLANNING AND MANAGEMENT

Mr. Chairman, members of the Committee, I appreciate this opportunity to discuss with you our FY 1976 estimates for the Agency and Regional Management and Buildings and Facilities appropriations. Since some of the members of this Subcommittee are unfamiliar with details of EPA organization and operations, I think it would be useful for me to outline for you the general composition of these appropriations.

Agency and Regional Management consists of two basic parts: "management" and "support". The management component covers the overall policy formulation and direction of Agency programs provided by the Administrator, Deputy Administrator and Regional Administrators and their immediate staff offices. It also covers those organizational components which provide centralized activities such as program planning and evaluation, budgeting, accounting and auditing, personnel, contract and grant management and similar administrative services. In the Headquarters such activities are provided by the Office of Planning and Management for which I am responsible; in each of the Regional Offices they are provided by a centralized Management Division.

The support segment consists of a wide variety of non-personnel costs such as:

* Centralized automated data processing services.

* Agency-wide lease costs.

* Building and office services including utilities, local telephone services, custodial and security services, and office supplies for the Headquarters, Regional Offices, and programs located at Research Triangle Park, North Carolina and Cincinnati, Ohio.

* Communication services provided by GSA's Federal Telecommunications Service and charges made to us by the Postal Service.

* Contractual services for economic and analytical studies which are supportive of a variety of agency programs.

Efficient administration requires that these Agency-wide support costs be managed centrally. As a part of our management approach, however, we do associate these costs with the various organizations and programs which benefit from them. For this reason, the total of support costs are allocated on a pro rata basis to each of our various appropriations where they appear as part of the program management and support activity. This arrangement makes it possible to show the distribution of indirect costs without complicated and expensive accounting procedures.

With respect to Buildings and Facilities, this appropriation is intended for the design and construction of EPA-owned facilities as well as for necessary repairs and improvements to existing facilities.

In our FY 1976 budget proposals we are requesting a total increase of $4.7 million for management. The largest part of this increase -- $3.6 million -- is related to the preparation of environmental impact statements on municipal wastewater treatment plant construction grants, new source discharge permits and certain of our regulatory actions. The additional funds will enable us to accommodate an increasing workload and do a more comprehensive analysis in support of each impact statement. The remainder of the increase will be used to strengthen our audit effort as it relates to municipal waste treatment plant construction. This is in line

with the overall emphasis we are giving to construction grants management and reflects our awareness of the high potential for misuse of funds in a public works program of this size.

I should also like to point out that these increases in the management area are partially offset by a planned reduction of 35 positions in Headquarters administrative activities of the Office of Planning and Management to be accomplished by the end of FY 1976.

In the support area we are requesting an overall increase of $10.3 million. Of this total amount, $2.1 million is allocated to the Agency and Regional Management appropriations through the allocation process I mentioned previously. This total increase will be used for the following:

* Building and office services, including the costs associated with relocating offices and laboratories into replacement facilities in Headquarters, Research Triangle Park, and Cincinnati, as well as a rate increase for utilities, supplies, and support services ($2.6 million).

* Anticipated cost increases associated with the re-negotiation of contracts for ADP time sharing services and for ADP systems improvements. ($1.1 million.) This reflects the reprogramming in FY 1975 which has been approved by this Subcommittee.

* Increases in facilities lease costs which take into account both the acquisition of new space and rent increases; the cost of providing equipment for replacement laboratories; and increased charges for postal and Federal Telecommunications services ($5.2 million).

We are also requesting $2.1 million under the Buildings and Facilities appropriation, an increase of $700,000 over the current year. This full amount will be used to make repairs and improvements at various EPA-owned laboratories which are necessary to meet Labor Department standards under the Occupational Health and Safety Act.

Before closing, I want to stress the direct relationship between our Agency and Regional Management Appropriation and the various media programs. In addition to what might be termed basic "housekeeping activities", these funds provide a number of very critical program functions which are included in this appropriation simply because they can best be performed on an Agency-wide basis; these include:

* Economic and similar studies essential to the development of Agency policies and standards.

* Programs aimed at informing the public regarding national environmental policies and actions.

* Development and coordination of international programs relating to the environment.

* Preparation of environmental impact statements covering EPA activities; management of the review of impact statements prepared by other agencies and of the Agency's responsibilities with respect to the environmental control problems at Federal installations.

I would be pleased to answer any questions you might have.

STATEMENT OF JAMES L. AGEE
ASSISTANT ADMINISTRATOR FOR WATER AND HAZARDOUS MATERIALS

Mr. Chairman, it is a pleasure to be here today to talk to you and the Committee. The Office of Water and Hazardous Materials which includes Water Program Operations, Water Planning and Standards, Pesticide Programs and Toxic Substances, is very complex. There are many mandated requirements and the resources appropriated will not suffice to do all the things that we need to do. It is therefore necessary that we establish priorities in each of the programs. It is these priorities that I want to address here today.

Under our construction grants program we provide grant assistance to cities and towns across the country for the construction of municipal waste water treatment facilities. The Federal Water Pollution Control Act (FWPCA) amendments of 1972 authorized $18 billion for this program, all of which has now been allotted to the States.

One of our primary objectives in both FY 1975 and FY 1976 is to accelerate the pace of the construction grants program to assure that facilities are constructed in the most timely manner possible. In the past year or so we have taken a number of steps to move the program more rapidly.

In January 1975, we established a special team of high level EPA and State officials which streamlined and simplified proposed regulations. At the same time we formed--within EPA--a construction grants review group which examined the operation of the program at Federal, State and local levels of government, and made recommendations designed to improve program efficiency. We have held a number of seminars with State and local governments, engineering organizations, contractors, labor unions, equipment manufacturers, and other groups to explain the program to them and seek their cooperation in moving it forward as expeditiously as possible. In addition, we have established a program management system which focuses on managing and moving our projects through planning, design and construction in a timely manner.

As a result of our intensified efforts on the construction grants program, we have already begun to notice an upturn in program activity. Whereas we obligated $1.4 billion in FY 1974, we expect to make grant awards of approximately $3.5 billion in FY 1975 and over $5 billion in FY 1976. In 1974 we made awards to 1,000 new projects. This figure is expected to grow to over 3,000 awards in FY 1975 and over 5,000 awards in FY 1976.

In addition to stepping up the pace of grant awards, we have also directed a greater level of attention on moving projects into construction after the award has been made. Since last summer we have been closely monitoring every project which has not gone under construction within six months after grant award. Through increased efforts in this area we have significantly reduced the number of projects in the pre-construction state for excessive periods.

Increasing levels of administrative workload, coupled with a need to monitor projects more closely to fulfill stewardship requirements, will create severe pressure on limited EPA regional staffs in FY 1976. Although augmentation of EPA staff is expected, the best long term solution will be to delegate a greater level of responsibility for this program to the States. In this way we can assure an optimum level of program management at the State level, funding of State administrative costs from State allotments, and restricting Federal involvement to broad overview policy, and auditing activities.

Section 208 of FWPCA provides for the development and implementation of areawide waste treatment management plans. Areawide planning generally is confined to those areas where there are complex urban and industrial or nonpoint source water quality problems that cannot be solved by secondary treatment or equivalent industrial technology. The program provides for the development of a special management structure to carry out the planning, and the Federal Government provides a 100 percent grant to help local governments with their planning costs.

At the present time 70 designations have been approved for 208 areawide waste treatment management planning projects and an additional 20 are in the process of review and consideration within the Environmental Protection Agency. The number of designations made by the end of FY 1975 is expected to be between 140 and 150. Estimated funding for this total number of designations is expected to approach $150 million. In FY 1975 there were 14 designations totaling approximately $13.5 million. FY 1975 funds committed to designations already approved total nearly $70 million.

In FY 1976, we have programed for $53 million at a 75 percent Federal share. Our intentions presently are to convert from "contract authority" funding--presently contained in Section 208--to normal advance appropriations funding. Thus, the programed $53 million will require an appropriation initiated by this Committee. We anticipate that 66 projects will be designated in FY 1976.

The Safe Drinking Water Act (PL 93-523) was signed into law on December 16, 1975. This Act requires EPA to promulgate regulations pertaining to all public water supply systems, the protection of underground sources of drinking water and State programs to implement these regulations. Among the numerous deadlines imposed by the Act are the promulgation of interim primary regulations for public water supply systems by June 1975, State Water Supply Program regulations by September 1976, and the underground injection control regulations and regulations pertaining to the esthetic quality of water by December 1975.

It is estimated that there are 240,000 water supply systems nationally that must comply with at least a portion of the primary regulations when they become effective in December of 1976. States will be required to adopt and enforce regulations at least as stringent as those to be promulgated by EPA and to meet other requirements established by EPA as required by the law. A grant program to help build State programs is authorized for FY 1976 and FY 1977. Of the

$32.3 million requested for the water supply budget $19.8 million is for abatement and control. $10 million of that amount is requested for State Program Grants. Where States fail to qualify for primary enforcement authority, EPA will be required to assume the State role.

A critical aspect to the successful implementation of the Act is the willingness and ability of States to assume primacy. Based on a preliminary survey EPA currently estimates that 25 to 30 States intend to request primary enforcement authority. The others apparently are going to wait until the regulations are published before deciding.

In FY 1976 priority activities for EPA's water supply program are the development and promulgation of regulations as required by the Act, and provision of technical assistance to the States to help them achieve primary enforcement authority. $9.9 million is requested for these purposes.

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) amended in 1972, gives the Environmental Protection Agency broad new responsibilities and authorities to protect man and his environment from the adverse effects of chemical pesticides. It places many new responsibilities on States and calls for extensive cooperative efforts not previously required. The new Act continues EPA's responsibilities under which almost all pesticides reach the environment.

Of the $44.3 million requested for Pesticide Programs $29.5 million is for abatement and control. Of that $29.5 million, $8.1 million is for Registrations and Tolerances, an increase of $.5 million over that allotted for 1975. EPA must reregister and classify over 28,000 interstate and 15,000 intrastate previously registered products for "general" or "restricted" use by 1976, the effective date for reregistration. This calls for action based on assessment of the unreasonable adverse effects of pesticides including the costs and benefits of their uses. The burden of reregistration is enormous and must be accomplished by EPA within the statutory time-frame and with minimum disruption to manufacturers and users.

To accomplish the reregistration and classification of over 40,000 products with available resources requires the Agency to employ reregistration procedures somewhat different from those now used. As we see it, the key is for the Agency to maintain close control of the submission of reregistration applications from registrants. We propose to do this through a schedule of batch solicitation of products similar to each other in chemistry and broad use pattern. Comprehensive guidance instructions with particular emphasis on labeling and packaging are now being developed as a top priority activity since this is the focus of the reregistration call-in procedure. We are reluctant to build up the manpower level to meet only this peak load period and then be faced with reductions later. The Pesticides area, therefore, is concentrating all the needed skilled technicians with previous experience in the job of reregistration. It is also using other short-term management techniques to meet the problem.

EPA now has the authority to insure control of local health and environmental problems arising from misuse of pesticides. This will be accomplished by requiring that applicators of potentially hazardous pesticides be properly certified; by improved labeling and packaging; by imposing regulatory restrictions as needed; by applicator training and public education; and by timely enforcement.

The top priority of EPA's pesticides technical assistance program is to support States in the development and full scale implementation of applicator training and certification programs. $16.8 million has been requested for technical assistance to the States. About two million private and 100,000 commercial applicators of "restricted use" products may require certification by the States. Most of these pesticide applicators could require some pre-certification training. To ensure certification of private and commercial pesticide applicators requires close Agency cooperation with States in the development of State-designed and operated programs for certification and training. It is through the certification of applicators, coupled with improvements in labeling and packaging, as well as other regulatory restrictions on use as warranted, that EPA anticipates a significant reduction in adverse health and environmental effects resulting from the use of pesticides. Because of the controlling relationship of enabling legislation in States, and the problem of many States not having this necessary authority, the Agency has been working closely with them during their recent legislative sessions on new or amended legislation.

The Agency is very aware of the interrelationship and impact of reregistration-classification of "restricted use" products and the availability of certified applicators to use these pesticides. While most States hope to have applicator training programs functioning early in FY 1976, the winter of 1975-1976 is the period when most of the training must take place. EPA has been working cooperatively with States and the USDA-Extension Service in getting States started on this vast training program. The program is going to need this kind of continued close partnership throughout.

There are more than 20,000 chemical substances being produced in the United States for commercial purposes, with 500 or 700 new chemicals introduced into the marketplace each year. Of this number about 80 percent are toxic under some conditions, and about 1.5 percent are sufficiently hazardous to cause environmental concern. Problems associated with a number of these chemical compounds, such as vinyl chloride, arsenic, polychlorinated biphenyls, asbestos, and others, have attracted widespread public attention. Factors such as these led EPA to create its toxic substances program in 1972.

In the absence of toxic substances legislation EPA's current toxic substances program is carried on under the authorities granted in the Agency's major legislative mandates such as the Clean Air Act, the Federal Water Pollution Control

Act, the Safe Drinking Water Act and other authorities. Major program activities include development and coordination of Agency efforts under these authorities addressed to the problems of toxic materials which cross traditional media lines, use and development of predictive techniques for early warning and identification of substances most likely to pose a hazard to man or the environment, implementation of methods for monitoring air, water, and soil for selected toxic chemicals, and development of control strategies for multimedia toxic pollutants. The Office of Toxic Substances is screening known organic contaminants as to their health effects, carcinogenicity, industrial sources and environmental exposure. OTS has undertaken a series of investigations to answer specific critical questions about toxic substances in the nation's waters with special emphasis on drinking water supplies. Investigation is also being conducted into the effects of selected toxic substances of current concern about their metabolites on human health to provide background to support future regulatory efforts.

Until toxic substances legislation is passed by Congress, EPA will continue to deal with toxic substance problems by relying on other legislative authorities, either singularly or in combination, to mitigate as much of the hazard as possible. In addition, the Agency is increasingly encouraging the major chemical producers and processors to take more substantive voluntary steps to reduce chemical risks and contribute to environmental goals.

This concludes my prepared statement, Mr. Chairman. I would be glad to respond to any questions you may have.

STATEMENT OF
HONORABLE WILSON K. TALLEY
ASSISTANT ADMINISTRATOR FOR RESEARCH AND DEVELOPMENT

Mr. Chairman and members of the Subcommittee, I join Mr. Train and my colleagues in welcoming this opportunity to appear before you today to discuss the programs and budgetary requirements of the Environmental Protection Agency.

I would like to take a few minutes to discuss briefly the portion of our total program for which I have specific responsibility. That is our research and development program.

The Office of Research and Development functions as the principal scientific and technical arm of EPA. Its fundamental role is to produce the necessary scientific data and technical tools on which to base sound national policy in the development of effective pollution control strategies and the promulgation of adequate and viable environmental standards. To accomplish this mission, it is the responsibility of OR&D to establish a variety of programs to answer exceedingly complex questions of the following types.

- How can we detect, identify, measure, and monitor pollutants?
- When and in what quantity does something in the environment become a pollutant requiring regulation and control?
- Where do pollutants come from, how do they get there, and what happens on the way?
- What are the health and ecological effects of pollutants on man, other life forms, and the inanimate environment?
- What technologies are available for controlling pollution and what are their design and operational requirements, efficiencies, reliabilities, and costs?
- How, when, where and with what human, social and economic cost/benefits can environmental quality best be managed?

This OR&D mission is pursued through the combined efforts of approximately 1800 permanent technical and support personnel. From economist to biologist and procurement clerk to physician, the OR&D staff represents more than 60 different professional disciplines and specialities located throughout the nation at 25 major laboratories, field stations and headquarters. All contribute to the total thrust of a research and development program which consists not only of the in-house activities of OR&D scientists and engineers but also of a substantial and fully-integrated extramural grant and contract program carried out in cooperation with the academic and industrial communities, as well as through numerous agreements and cooperative programs with other Federal, State, and local agencies.

The variety of legislation from which we draw our authorities and responsibilities has already been described. Because of this variety, our program is, of necessity, multi-disciplinary and multi-media in nature. It literally cuts across all areas of EPA responsibility and provides support to each of the Agency's Program and Regional Offices. Historically, it has been necessary for budgetary purposes to classify our program along specific media or categorical lines such as air, water, pesticides, etc.

However, pollution problems often involve ramifications which are environment-wide in impact and cut across such arbitrary boundaries. Consequently, the appropriate research thrust for dealing with environmental problems must be an integrated one.

For this reason, as well as to avoid unnecessary duplication of effort, facilities, or expertise for planning and management purposes, the Office of Research and Development operates its program primarily along functional rather than budgetary lines.

Mr. Train earlier summarized and highlighted the research and development program which has a total budget request of approximately $162.6 million for FY-1976. Thus, I thought it might be useful to the members of the Subcommittee to characterize briefly the research and development program in terms of its functional areas of programmatic activity.

Within the Office of Research and Development eight major program areas or activities can be identified: health and ecological effects research; municipal pollution control; industrial pollution control; non-point source management; air control technology; energy-related environmental research; monitoring; and socio-economic research. We have recently reviewed these categories to see if more effective groupings of research activity can be developed to improve the management of the overall program. While some changes in our past organization are being made to streamline the management of our program, the actual research carried out by our scientists will not be changed.

The principal thrust of the health and ecological effects research program is to provide an integrated assessment of pollutant effects on man, other life forms, and the non-living environment, as well as to characterize pollutant transport and transformation phenomena. This program provides the primary scientific information to support the promulgation and enforcement of legally viable standards and regulations.

The municipal pollution control program concerns the development and demonstration of new or improved cost-effective technology for the control and treatment of waste waters and sludge from urban and rural population centers. This program directly supports the Agency's multi-billion-dollar construction grant program.

The industrial pollution control program is responsibile for developing and demonstrating economic control systems and processes relating to industrial pollution abatement methods. This program provides the primary data base for the establishment of economically and technically feasible effluent guidelines and treatment parameters for industrial liquid waste discharge permits.

Non-point sources of pollution are those whose discharges are from activities such as agriculture, mining, construction activities, or urban run-off, which generally cover broad land areas and are mostly diffuse in nature. The non-point source management program provides for the development of information, decision-making tools, and the technology to effectively deal with such pollutants.

The air research and development control technology program deals with the development and demonstration of technology and processes for the control of air pollutants at their sources. This program is one which has been substantially augmented by the addition of the energy-related research and development program to the total OR&D program.

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The energy-related environmental research program is dedicated to assuring that the national energy goal of self-sufficiency is achieved in an environmentally acceptable manner. The principal objectives of the EPA energy-related research and development program are to develop a sound technical and scientific basis for ensuring adequate protection of human health and welfare, the ecosystem, and social goals; to provide environmental protection necessary to facilitate the use of energy supplies, with particular emphasis on domestic fuels; to support energy system initiatives without delays caused by inadequate and insufficient environmental impact data; to develop appropriate cost-effective control technologies for emerging energy systems; and to assess the environmental implications of energy conservation measures in order to maximize energy savings and minimize the environmental impacts.

The addition of major FY-75 funding support energy-related environmental research area has also provided significant spin-off benefits in the augmentation, acceleration, and enhancement of several "base" program areas, including health and ecological effects, air pollution control, and monitoring.

The monitoring program fulfills two major functions. First, the program is responsible for the development of advanced measurement methodology and equipment to support, in an economic manner, the establishment of data acquisition and processing systems with a high degree of quality and reliability. Secondly, as a by-product of our development work, the program provides substantial direct technical support to the various Agency programs and Regional offices, as well as to State and local governments in meeting their immediate monitoring needs.

The socio-economic research program is directed at the development and demonstration of the analytical and management techniques required to implement environmental quality control programs at the national, regional and local levels.

Such techniques are necessary to accomplish and verify Agency policy, strategies, decisions, standards, regulations and plans.

These--in addition to a variety of support activities, such as technology transfer, the minority institution research support program, program integration, and overall management--constitute the total thrust of the Office of Research and Development.

In closing, I would like to state that development of the specific content of our programs is based on a fundamental factor.
This is the full recognition that OR&D serves a support function within a regulatory agency. The strategy, specific objectives and priorities within OR&D should not, and cannot, stand as entities in and of themselves; rather, they must derive from those of the Agency in the accomplishment of its total legislative mandate.

The program, then, is one of mission-oriented research and not one of so-called basic research. This is not to say that some very fundamental research is not, in fact, an integral part of our program. It is and must continue to be so because of our responsibility to provide control systems for pollution problems which are either beyond current state-of-the-art or which will emerge in the future.

Mr. Chairman, this completes my statement describing our program. We are looking forward to working with this Subcommittee to fashion and maintain an environmental research and development program of the highest quality.

STATEMENT OF
RICHARD H. JOHNSON
ACTING ASSISTANT ADMINISTRATOR FOR ENFORCEMENT

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to appear before you today to discuss the FY 1976 budget request for the enforcement activities of the Environmental Protection Agency.

My remarks will be aimed at supplementing the printed budget materials which you have before you for those areas for which I have responsibility. These activities include the enforcement of applicable standards and regulations authorized by the 1970 Clean Air Act, the Federal Water Pollution Control Act Amendments of 1972, the Federal Environmental Pesticides Control Act of 1972, the Noise Control Act of 1972, and the Safe Drinking Water Act of 1974.

The Enforcement budget for FY 1976 totals 1,525 positions and $53.2 million in budget authority which is a net increase of 1.5 million in dollars but a decrease of 72 positions compared with the FY 1975 level of resources. This represents a decrease of 146 positions and $2.8 million in Water Enforcement resources made possible as result of having issued virtually all major discharger permits in FY 1975 and is offset slightly by minor increases in our Air and Noise Enforcement Programs. I believe this proposal represents a reasonable and balanced strategy for maximum utilization of scarce resources in what promises to be a demanding year for the programs of the Office of Enforcement.

A principal concern of our enforcement program in FY 1976 is to ensure that the health related air quality standards are attained across the nation as quickly as possible. While state and Federal enforcement efforts have resulted in a general decline in levels of pollution produced by stationary sources it has become increasingly evident that the Primary National Ambient Air Quality Standards will not be attained in many areas by the dates mandated in the Clean Air Act. Our goal in fiscal year 1975 is to ensure compliance by some 20,000 major emitters which, as a group, are responsible for 85% of the air pollution produced by fixed installations. By this June this goal will be largely achieved when 85% of the major emmiters will be in compliance with emission limitations. However, continued unabated emissions by the remaining 3,000 major emitters plus large numbers of violations by lesser emitters in urban areas is expected to delay attainment of particulate and sulfur oxide primary ambient air quality standards in up to 80 Air quality control regions. In fiscal year 1976 States and EPA will intensify enforcement efforts in these polluted areas to ensure that compliance schedules are met by the remaining major violators and that groups of lesser emitters impacting air quality are identified and placed on schedules when found to be in violation of applicable standards.

Secondly, the Federal Water Pollution Control Act Amendments of 1972 established an effective and strong National Pollution Discharge Elimination System (NPDES) for abatement of water pollution. Our goal for FY 1975 had been to establish abatement programs for substantially all identified major dischargers by the end of 1974. Due to the strong commitment of the States and the staffs in our Regional offices, we have been successful in this attempt. As of December 31, 1974,

EPA and the States have issued 94% of major industrial permits and 85% of major municipal permits. As a result, we are shifting our efforts to compliance monitoring. The assurance of compliance with permit conditions, and permit schedule deadlines in particular, is essential to the success of the NPDES program and is the number one priority for the Water Enforcement Program in FY 1976. We are determined to maintain the momentum created by the issuance of major permits.

Finally, FY 1976 promises to be a demanding year in that environmental considerations will share the spotlight of public concern with economic and energy problems. Since the establishment of EPA, we have been successful in establishing legal respect for pollution control requirements. We will continue the "firm but fair" application of pollution abatement requirements that has led to a much higher degree of industry compliance than ever before. Our vigorous enforcement efforts have not consisted solely of prosecution activity, however. From the very start, our strategy has been designed to foster voluntary compliance with requirements and to cooperate with State agencies, recognizing that States must play a vital role in protecting the environment. Formal court actions were used only when all other methods failed to bring about the necessary responses. For example, many of those cases involving water pollution by industries were resolved by establishing voluntary compliance schedules through discussions with State and industry representatives. Successful negotiations such as these are desirable in that the same desired effect is realized without expensive time consuming litigation. However, if informal enforcement procedures such as these do not result in reasonable remedial measures being undertaken in a responsible and timely manner, EPA is fully prepared to pursue more formal administrative and judicial action.

As I indicated earlier, assuring that dischargers have valid permits and are complying with permit conditions poses a great challenge for EPA this coming year. Fortunately, the Act recognized the magnitude of this task and provided for State participation in this program. We will continue to place extremely high priority to encouraging States to assume increased programs responsibilities for the NPDES program. As we shift more into the compliance monitoring phase, a reduction in water permits/enforcement manpower of approximately 15 percent is possible. For example, the number of positions in FY 1976 is 744 compared to 890 in FY 1975. This makes it imperative that additional States take the lead in permit issuance, compliance monitoring, and enforcement so that all major and minor sources are brought fully under NPDES control. We have approved 22 State programs to date and hope to have an additonal 14-16 State programs approved by the end of FY 1976. Unfortunately, we have not been able to move as quickly as we planned primarily because of delays in State implementing legislation. However, our commitment to State participation in water enforcement remains steadfast. We have made every effort to substantially increase participation by all States even some of those where we have not been able to formally approve the state permit programs (such as Massachusetts, Texas, and New Mexico) in drafting and issuing permits and in sharing facility compliance inspection of the principal sources of pollution.

With respect to mobile sources of air pollution the Mobile Source Enforcement Program in FY 1975 conducted 33 inspections and 6 investigations of major domestic and foreign vehicle manufacturer's certification procedures, proposed Selective Enforcement Auditing Regulations to assure compliance of production vehicles on the assembly line with emission standards, prosecuted through the Justice Department 5 cases of tampering by dealers, monitored 458,000 vehicles recalled by manufacturers to correct emission related problems, and monitored some 3.0 million imported vehicles and engines under the joint EPA-Customs Import Regulations. Inspections of 17,000 gasoline stations to assure compliance with the unleaded gasoline regulations were also conducted.

The resources requested for the Air Mobile Source Enforcement Program for FY 1976 represents an increase of 33 positions and $923 thousand and will provide for the continuation of these activities. Special emphasis during the coming year will be placed on assuring compliance with State Inspection/Maintenance Programs. The level of resources requested will allow the Agency to assure compliance of production vehicles with emission standards. Funds requested will specifically provide for the development of an EPA Mobile Enforcement Test Facility (METFac) to directly support the Selective Enforcement Auditing Program.

The request will enable us to continue inspecting gasoline retail outlets at a level necessary to assure the general availability of lead-free gasoline. Also, the request provides for the development of a voluntary self-certification program for aftermarket parts in order to avoid unnecessary anti-competitive effects of the warranty, recall, and tampering programs.

Noise Enforcement efforts will become increasingly important in FY 1976 and although the requested increase of 9 positions and $500 thousand is small in terms of the total agency budget, it does represent a significant increase in enforcement responsibility. During the past year, the Agency has proposed regulations for enforcement of new product noise emission standards for medium and heavy duty trucks and portable air compressors. In addition, an EPA Noise Enforcement Test Facility to support the enforcement activities for production verification and assembly line audits of new products subject to noise emission standards is being established to become operational for testing by February 1976.

The requested resources for FY 1976 for this program will provide for the enforcement of new product noise emission standards for medium and heavy duty trucks and portable air compressors and the development of enforcement strategies associated with additional new products identified for control.

Finally, although the resources requested for the Pesticides Enforcement Program are at the same level as last year, the program will shift its emphasis and will concentrate on ensuring the proper use and application of pesticides during FY 1976. Toward this end, the Agency expects to enter into cooperative enforcement agreements for the exchange of enforcement information with a number of other Federal agencies, e.g. U.S.D.A., U.S.D.I. We will also continue our effective regional

focus on industry compliance with both product and establishment registration requirements. The usual range of surveillance and enforcement activities will be applied by our regional offices.

The Agency is dedicated to putting in place the most responsive and effective program it can to deal with problems encountered in pesticide manufacturing and use, and to best ensure compliance with the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as amended. With this in mind, EPA will be entering into cooperative enforcement agreements with some States. State agencies can uniquely complement the Federal pesticide enforcement program, particularly in the areas of market and use surveillance and sharing of evidence for enforcement actions. State officials are more closely associated with pesticide producers and pesticide users than EPA headquarters or regional offices. They are therefore, more aware of local pesticide trade customs, pest problems, and use patterns. EPA and the States will both benefit by maximizing use of resources and expertise and by avoiding duplication of efforts. The cooperative enforcement agreements, which we expect to eventually enter into with all fifty State, will enhance State involvement in implementing the Federal Environmental Pesticide Control Act of 1972. As with the Air and Water enforcement efforts, State participation is the key to ensure nationwide compliance with our regulatory pollution control programs.

Mr. Chairman, this completes my opening testimony. I would be glad to respond to any questions you may have.

STATEMENT OF ROGER STRELOW
ASSISTANT ADMINISTRATOR FOR AIR AND WASTE MANAGEMENT

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to appear before this subcommittee to discuss the program activities of EPA Regional offices and the Office of Air and Waste Management (OAWM) included in the budget before you. The OAWM is generally responsible (within the framework of the abatement and control appropriation) for the development and promulgation of environmental standards, guidelines and regulations, and for the provision of technical support for the air, solid waste, radiation, and noise control programs. It is also responsible for provision of financial support to State and local air pollution control agencies in the conduct of air abatement and control programs and State solid waste management agencies for planning of solid waste management programs. The activities carried out under the abatement and control appropriation are aimed at fostering a partnership between the Federal and State governments in order that the goals of the legislative mandates be achieved.

The air program is aimed at implementing the Clean Air Act's mandates. The Act provides for the establishment of a set of environmental goals, sets forth the processes by which the goals are to be attained, and expresses a philosophy with respect to both the goals and their method of attainment. The goals are quantified in the National Ambient Air Quality Standards (NAAQS). A second set of standards impact directly on emitting sources through the setting of National Emission Standards for Hazardous Air Pollutants, New Source Performance Standards, and nationwide limitations on pollutant emissions from mobile sources.

The Act gives first priority to the achievement of standards protective of health. For the protection of health, the Act established mandatory times for the attainment of the standards; these standards are implemented through legally enforceable emission reduction plans.

The process for achieving ambient air quality standards requires that the States be given opportunity to design and implement the State Implementation Plans (SIPs) for achieving the ambient air quality standards, and that the Federal government take action when States do not adopt or carry out an adequate plan for achieving the standards. The States have been largely successful in achieving this goal of the legislation, although at times EPA has had to promulgate substitute regulations. EPA policy is to encourage States to adopt their own regulations whenever this is consistent with the Act's requirements.

Significant progress has been made in improving the Nation's air quality under the State Implementation Plans. Monitoring data show continued improvements in air quality across the Nation. The national composite average for total suspended particulates (TSP) has declined 14% between 1970 and 1973. The sulfur dioxide (SO_2) trend has shown a 25% decline during the same period. For photochemical oxidants, sufficient data for trends assessments is only available for California, where progress has been made in reducing oxidant levels. National carbon monoxide (CO) trends indicate that the percentage of values above the eight hour standards has generally declined. For nitrogen dioxide (NO_2), no trends determinations are possible due to the discovery, in 1973, that the routine ambient sampling method for the pollutant was faulty, invalidating most of the available data. New sampling methods do not indicate a widespread NO_2 problem thoughout the Nation as had the original method.

Although there is considerable progress to be reported in terms of improving national ambient air quality levels under the Act's mandates, this progress is not adequate in a number of areas. The status for specific Air Quality Control Regions (AQCRs) in terms of

meeting NAAQS by the statutory deadlines is mixed. Of the 247 AQCRs in the Nation, 42 are projected not to meet standards by statutory deadlines for SO_2 and 101 for TSP (this number includes 41 AQCRs where fugitive dust causes the violations). For oxidants, 74 AQCRs have reported levels in excess of NAAQS, but projections of future levels are not possible at this time. A similar situation exists for NO_2 and CO. Our new sampling method indicates thirteen cities currently exceed the NO_2 NAAQS. Likewise, 54 cities are in this category for CO. These projections should be viewed with caution, since less than adequate information is available on the status of ambient air quality for many areas.

At this time, EPA regional offices are in process in reassessing, with the States, the need for additional enforcement action to assure compliance with emissons limitations required by the State Implementation Plans and the need for plan revisions to provide for attainment. These reassessments are aimed at assuring full source compliance with reasonable control measures, at the identification of those additional control measures that would be required to achieve and maintain standards in the future, and at increasing the effectiveness of State and EPA enforcement activities by concentrating resources on those areas where the greatest benefit, in terms of air quality improvement, is to be gained.

While non-attainment of the standards may occur for a variety of reasons, including, in some cases, non-compliance on the part of sources, it is not all attributable to the failure of control measures. Significant problems involving the reasonableness of control measures are related to the control measures applicable to "fugitive dust" and the urban particulate background in relation to the attainment of total suspended particulates standards, the availability of low-sulfur fuels and alternative controls (e.g., flue gas desulfurization) in relation to the sulfur dioxide standards, and the serious social and economic disruption that would ensue from the implementation of some "transportation controls" for hydrocarbons and carbon monoxide within the statutory deadlines. Solutions for most of these problems can be found if additional time is provided for attainment of standards and for a less time-constrained implementation of control measures. Proposed legislation being considered by the Congress would provide this additional flexibility.

However, it is also evident that SIPs can achieve standards protective of health within the mandatory time period for the majority of Air Quality Control Regions. Action to assure that all the provisions of the plans are carried out is required in these Regions. For the most part, the AQCRs with air quality not yet meeting the national standards for sulfur dioxide have emissions from a limited number of large uncontrolled point sources, such as power plants. In most cases, enforcement of existing regulations would be adequate to attain national sulfur dioxide standards. However, problems are caused by a lack of readily-available low sulfur fuel and delays in application of flue gas desulfurization equipment. Proposed amendments to the Act would authorize the necessary flexibility in setting the compliance dates for these sources in a fashion that would be compatible with national energy goals and economic needs.

The attainment of national standards for photochemical oxidants and carbon monoxide in major cities is directly associated with control of transportation sources. In addition to the basic control measure--emission limits on new automobiles--other controls include traffic flow improvements, mass transit improvements, carpool incentives, or, in extreme cases, gasoline sales limitations and selective vehicle exclusion from downtown areas. Since some of these measures would have major social and economic impact, proposed amendments to the Act would allow the attainment date for auto-related pollutants to be extended where necessary, thereby eliminating the need for application of control actions with serious adverse social or economic effects.

The budget request covers the activities related to the assessments requisite for determining progress to date, the reassessment of SIPs based on their status at the time of the statutorily mandated standards attainment dates, i.e., mid-1975, and the continuation of State and local control agency financial and technical support. I would like to indicate that, in terms of obligational authority, the support to be provided to States and localities remains the same for both 1975 and 1976.

In addition to the work related to ambient air quality standards attainment, two relatively new areas of program concern are being implemented. One is the broadening of the planning mechanism to assure the future maintenance of standards once achieved and the other is the prevention of significant deterioration of air quality in relatively clean areas. The Mobile Source sub-activity covers a program area primarily of Federal concern, the control emissions from new motor vehicles.

Under the Mobile Source budget sub-activity, activities are carried out to control emissions from new motor vehicles. Emissions standards coverage will be extended to classes of vehicles not currently covered, such as motorcycles, and the standards for currently covered classes may be changed, such as for heavy duty engines for which more stringent standards may be in order. Work on the definition and potential for control of the emissions from catalyst equipped vehicles is to be continued as part of the work related to the statutory and interim standards for light duty vehicles. Work on fuel economy testing, certification of motor vehicles and engines, and improvements in the certification procedures is also to be continued. Fuel economy data are obtained, at little additional cost, during testing of vehicles for conformity with emission standards.

Regulations require that motor vehicles meet emissions standards at high altitude locations. It is planned to implement these regulations through an appropriate contract. Certification of testing laboratories (where vehicles, certain replacement parts, and inventor devices could be tested for their impact on emissions) will be implemented. For this purpose, as well as for high altitude testing of vehicles, an increase of 11 positions and $600,000 is included in the budget request. This increase is balanced by a reduction of $2,000,000 and 7 positions related to discontinuation of one in-use vehicle emissions testing program for model year 1975.

The solid waste management program's objectives are to achieve environmentally acceptable and safe solid waste management, to protect public health, and to conserve natural resources. A joint Federal, State, and local effort is aimed at the achievement of these objectives, with EPA focusing on areas of waste management problems having a significant impact in terms of national implications (e.g., hazardous waste disposal, disposal of sludges resulting from air/water pollution control, and demonstration of resource recovery technology) and State and local efforts directed towards the management of municipal and other types of wastes.

Significant differences in environmental and health damage are associated with different types of waste, from innocuous (e.g., glass bottles) to severe (e.g., arsenic-containing pesticides). The level of attention that should be paid by the Federal government to waste management can be related to the degree of harm involved, and interstate or national extent of damages resulting from poor management. The EPA approach is to direct the most severe types of wastes (i.e., hazardous) to a few, strictly controlled processing and/or disposal sites, leaving the overwhelming number of other sites to process and/or dispose of other wastes.

EPA's regulatory activities in the hazardous waste area are currently limited to issuance of guidelines for hazardous wastes disposal under section 209 of the Solid Waste Disposal Act. The hazardous waste-related program activities in 1975 and 1976 focus on data base development which is an essential first step toward implementation of a hazardous waste control program. The data base program includes the scientific work needed to assess the hazards of chemicals and waste streams as an evidentiary base for guidelines issuance, technology assessment, development and demonstration, and requisite benefit/cost trade-off analyses.

In the management of other wastes, the focus is on problems associated with land disposal. EPA efforts in this area include consolidation, dissemination, and augmenting as necessary existing technical knowledge. Areas of additional investigation include the evaluation and demonstration of leachate collection and treatment for prevention of groundwater pollution, assessment of current practices in sludge utilization and disposal, and assessment of heavy metals problems associated with sludges (which dictates type of control on land or underground).

From an environmental point of view, resource recovery represents an alternative to disposal, usually achieved at a lower environmental cost. It also represents a means of obtaining resources at a lower environmental cost in comparison with virgin raw materials. The overall objective of the resource recovery program is to achieve as much of the recovery potential as possible through a program of technology development/demonstration/assessment, technical and management information dissemination, and implementation stimulation through technical assistance and the provisions of seed-money for planning and plans implementation.

Through our demonstration program, we have endeavored to stimulate new and innovative resource recovery systems by States and municipalities. There is a significant energy potential to be gained from energy recovery of mixed municipal refuse. Under optimal conditions, 1% of national energy requirements could be met through the combustion of such wastes as a utility fuel supplement. This approach is now operational in St. Louis and elsewhere. We are currently demonstrating four energy recovery systems (a first step in attaining this national energy potential), and two materials recovery systems under this program and are initiating four new demonstrations this year.

Many communities are hampered in implementing resource recovery by the lack of in-house expertise to conduct feasibility studies or to procure resource recovery systems. As a consequence, many communities have expressed the opinion that they would implement resource recovery systems if they were to receive assistance from the Environmental Protection Agency to hire consultants to assist with these early implementation phases. For this reason, the Environmental Protection Agency, under the authority of section 204 of the Resource Recovery Act of 1970, as amended, will be providing funding for an estimated six communities to conduct implementation planning. This planning will encourage communities to actually implement resource recovery systems and to demonstrate proper methods for conducting feasibility studies and procuring resource recovery systems.

Our program of technical assistance goes hand in hand with our demonstration projects across the country. It is this effort which bridges the gap between the achievement of demonstrated technology and the practical application of such techniques to meet a community's actual needs. By advising States and localities on available solid waste management and energy and materials recovery practices (including information on costs, availability of markets, and contractual arrangements) we are seeking to overcome one of the most significant problems of solid waste management and resource recovery--the lack of information. Ignorance of many aspects of the total solid waste management and resource recovery picture often prevents cities from proceeding to implement systems to deal with their solid waste problems in environmentally sound ways.

The solid waste abatement and control funds of $10,332,000 in FY 1975 and $11,622,700 provides the funding for these activities.

EPA is in the unique position of having an overview responsibility in the radiation area which ensures that a single focus on radiation insults in the public health and our environment is maintained. EPA maintains the broad, national, and overall societal perspective on radiation problems in its programs: other agencies do not address a national focus but are source-specific in regulation, preparation of impact statements, and monitoring for compliance. The EPA functions encompass the setting of environmental standards and issuance of Federal guidance, technology assessment and EIS reviews, and national surveillance and population dose identification programs.

EPA's basic radiation authorities are derived from the Atomic Energy Act, including the Federal Radiation Council authority, the Public Health Service Act, and the National Environmental Policy Act.

The radiation abatement and control funds of $4,569,900 in FY 1975 and $4,337,100 in FY 1976 provide the funding for these activities.

The EPA program carried out to implement the Noise Control Act focuses on development of regulations and related activities that will lead to a reduction of the population exposed to noise levels which may be deleterious to health and welfare. The primary method for achieving these goals is through the establishment of noise emission standards for new products. These standards limit noise emissions for any product, or class of products, identified as a major source falling within four categories; construction equipment, transportation equipment (including recreational vehicles), any motor or engine, and electrical or electronic equipment. Discretionary authority is also provided to prescribe standards for any other products for which standards are feasible and necessary to protect the public health and welfare.

Proposed rules have been published, and hearings have been held, for the first set of products, i.e., medium and heavy duty trucks and portable air compressors. We expect that final regulations will be promulgated by the end of June. A substantial number of additional products will be identified during FY1976.

Given adequate resources we intend to identify and promulgate regulations on all major new product sources of noise by no later than 1982, with earlier requirements in many cases. We estimate an average 10-year turnover in the regulated product population; thus we will begin to get quieter new products in the near future and will have substantially replaced the existing population of noisy products by about 1992.

In addition to the new product standards, EPA is charged with establishing noise emission standards for existing interstate motor carriers and interstate railroad facilities and equipment. Motor carrier regulations have been promulgated and become effective in October, 1975. Railroad regulations have been proposed. The latter have been delayed because of major concerns expressed regarding their economic impact. Once EPA interstate carrier regulations are made final, the Department of Transportation is required to issue regulations to ensure compliance and to enforce the regulations. DOT has proposed regulations for compliance with out interstate motor carrier regulations.

The Noise Control Act also contains a provision for reviewing aircraft and airport noise control practices and recommending to the Federal Aviation Administration (FAA), noise abatement regulations protective of public health and welfare for adoption and enforcement. To date, EPA has submitted proposals to FAA relating to minimum altitudes within terminal areas for turbojet powered airplanes; noise

standards for small propeller driven aircraft; a retrofit proposal, calling for the use of sound absorption materials in civil subsonic turbojets and establishing a fleet noise level reporting requirement; and a proposal relating to subsonic noise emissions for current and future design supersonic airplanes. Some of these recommendations already have been published by the FAA as Notices of Proposed Rule Making. Other recommendations will be made by the end of FY 1975 on approach and landing, modifications of FAR 36 noise limits, and for shorthaul aircraft.

For airport noise control, proposed requirements are currently being reviewed and tested at a number of representative airports. We anticipate forwarding our recommendations for a regulation to FAA early in FY 1976.

EPA also has authority to label products which cause an uncontrollable health risk or which protect people from the effects of noise (such as hearing protectors) or which control noise sources (such as mufflers). Our first action under this authority will be to label hearing protectors. Our intention to do so has been published in the Federal Register. Final promulgation is expected in FY 1976. When this labeling action is completed, subsequent labeling of hazardous products can be accompanied by specific guidance on the necessary hearing protection which will be needed by the user.

The noise abatement and control funds of $4,889,000 in FY 1975 and $9,592,200 in FY 1976 provide the resources for this level of activity.

I would be pleased to answer any questions which the members of the committee may have.

TESTIMONY OF MEMBERS OF CONGRESS AND OTHER INTERESTED INDIVIDUALS AND ORGANIZATIONS

TUESDAY, MAY 13, 1975.

VETERANS' ADMINISTRATION

WITNESS

HON. CHARLES A. VANIK, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. BOLAND. The committee will come to order. We are privileged to hear one of the most distinguished Members of the Congress, Mr. Charles A. Vanik of Cleveland, Ohio. He is not the only distinguished Member of the Congress with us today; we have other Members who are just as distinguished who are sitting here.

You appear with reference to the Veterans' Administration budget.

Mr. VANIK. Mr. Chairman, it is my policy in my district to do sort of an oversight of the various Federal agencies. Last year we had a great many letters concerning the condition in the Cleveland Veterans Hospitals and so I have had some members of my staff spend some time observing the outpatient clinic and in particular talking to patients in the spinal cord injury section.

I believe we have an outstanding director in Cleveland. We are very proud of him. However, there are problems with regard to care in the hospital. I believe what we say in the Cleveland Hospital might be repeated in veterans' hospitals and, perhaps, spinal cord injury centers throughout the country. Most of the problems come from inadequate funding and restraints on hiring enough good hospital aides.

I have no recommendations on dollar levels. I would only ask that your committee endeavor to keep a close watch on conditions, in particular the paraplegic and the quadriplegic ward.

For example, one of the things we found in our study was that there are long delays, sometimes as much as 2 to 4 hours, in inpatient care, with long delays on Sundays when there are times when there will be but one physician on duty. There are delays that are probably not unreasonable with respect to the filling of prescriptions that go as high as 4 hours because of understaffing.

The Cleveland Hospital is located in an urban area where we have a crime problem. As a result, there is absolutely no recreation area outside. There ought to be some kind of facility so patients, with some degree of security, can move out into the Sun and be outside and get a little bit of the external world.

Now, as a result, I think it is also important not only to develop safe outside facilities, but also to develop recreational facilities inside.

Mr. BOLAND. Where is the hospital?

Mr. VANIK. The one I talk of in particular is on the east side of Cleveland.

It is the area back of the Cleveland Art Museum. We have the University Center area. It is right in the university area. The hospital works in conjunction with Mount Sinai and with Case Western Reserve University Hospital.

Now, we have a problem and there is no real security for patients who may want to use some of the outdoors.

Then the internal recreation facilities which we would normally use are closed off during the weekends for the spinal cord injury patients. I have seen a great number of these; they can use the hospital's excellent swimming pool only 2 days a week for an hour a day. The pool is often closed to patients because of a lack of lifeguards and physical therapists.

In the hospital there is nothing to do after 5 o'clock. The pool and occupational therapy rooms are closed and the idleness and boredom does have a tendency to lead the patients to alcohol and drug problems while in the hospital.

There are other problems, the cleaning problem, the lack of telephones. I think one phone to 40 patients, so they lose a lot of communication.

In another area, several patients and staff indicated that they really did not need daily medical care, but they would rather stay in the hospital because they had no other place to go.

I don't know what it costs to keep them in the hospital, but it would seem to me it might be advisable to the committee to attempt to develop and determine whether a system of utilization and review could be developed to move patients into other facilities which would encourage the return of patients to the everyday world. I think this ought to be done. There could be a great savings to the Government.

Mr. BOLAND. I think this is being done. It is not being done at as rapid a pace as we would like to see it done, but there is an effort being made by the VA to get those who don't need hospital care into nursing homes, or into halfway houses.

Mr. VANIK. I think there are even some private homes where they could take care of a person and probably do it for one-third of the cost to the Government in facilities.

I don't have a dollar figure to recommend, but I was particularly moved about the problem about the paralyzed veterans. We have a great number of them out there and I would hope you can give some special consideration to them, opening up the occupational therapy rooms and taking care of the recreational facilities that are very limited and restrained.

I think these are some of the most deserving veterans that we have and I think we ought to try to accommodate them.

Mr. BOLAND. We agree with you and we appreciate your appearance here. I know that in the many years you have served in the Congress that you have paid particular attention to the veterans' facilities in Cleveland. I know you have visited them many times and you are aware of what the deficiencies might be. We are delighted to get your thinking on it.

One of the avenues the VA could pursue with reference to some of the repairs and cleaning problems, and also possibly in recreation areas, is the Emergency Employment Appropriations Act of 1975, which is pending. We asked the Veterans' Administration for a list of projects that could be started immediately to put people to work. We put funds for those projects in the emergency employment appropriation's bill.

Mr. VANIK. I also think about the need for getting people into a family setting, if it is at all possible.

We are thinking about the same thing in connection with the health care programs. I think under proper supervision some of these patients could be probably moved into family settings and provide an industry for some people that have the time, the strength and the facilities to handle a case or two. In the same way we have put children out in a family setting.

Mr. BOLAND. That would entail a whole new program and that is something we would have to look at very closely.

Mr. VANIK. I think it would be cheaper.

Mr. BOLAND. I don't know whether you can make the comparison with children. I think children need a family a lot more than some of the adult veterans. A lot of the veterans are really up in age, although some are relatively young as a result of the recent war. Putting the older ones out with families would be a difficult problem.

Mr. VANIK. I hope we might consider some experimental program, something to provide another approach to the problem.

Mr. BOLAND. Thank you very much. We have been delighted to have you.

FUNDING OF THE SAFE DRINKING WATER ACT

WITNESS

HON. JAMES L. OBERSTAR, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. BOLAND. We will be very happy to hear Mr. James L. Oberstar from the State of Minnesota, appearing with regard to the Safe Drinking Water Act.

Mr. OBERSTAR. I will submit my statement for the record and will summarize my remarks.

[The statement of Mr. Oberstar follows:]

Mr. Chairman and members of this distinguished committee, the Safe Drinking Water Act of 1974, now before your committee, contains in section 1444 authority to assist in the development and demonstration of varous water treatment technologies with priority to be given "where there are known or potential public health hazards which require advanced technology for the removal of potential public health hazards which require advanced technology for the removal of particles which are too small to be removed by ordinary treatment technology."

The committee report cites as an example of the type of situation intended for priority funding, removal of the submicroscopic asbestos fibers discovered in Lake Superior drinking water.

The sum of $7.5 million is authorized for this section for fiscal year 1976.

Various agencies of the Federal Government, primarily the Department of Justice and the Environmental Protection Agency, have spent around that figure in legal and scientific fees to compel Reserve Mining Co., the source of the asbestos, to end its discharge into Lake Superior, on grounds that the fibers present a serious health hazard.

Yet the President has not asked 1 dime to demonstrate the technology and economics of removing those fibers.

HEALTH EFFECTS

Mr. Chairman, the health effects of inhaled asbestos are well known and documented. While no conclusive evidence has yet been developed on the health effects of ingested asbestos, District Court Judge Miles Lord, after 9 months of testimony primarily from EPA and its scientists, closed Reserve, stating, "The court is faced with a situation where a commercial industry is daily exposing thousands of people to substantial quantities of a known human carcinogen."

Those fibers are still in the lake, and will be there for many years to come, regardless of the final outcome of the Reserve trial.

Every storm on Lake Superior roils the lake and stirs the settled asbestos fibers back into the water supply.

Just last March a particularly severe storm raised the fibers count to 2 billion particles per liter, prompting EPA to recommend against drinking Lake Superior water during that period.

The fibers remained in suspension at abnormally high concentrations for 4 weeks after the storm had abated.

A NATIONAL PROBLEM

Lake Superior is not an isolated case. The discovery of asbestos in that water supply prompted EPA, other units of Government, and independent laboratories to test drinking water across the country. Tests in 75 separate communities indicate that some degree of asbestos contamination exists in virtually every water supply examined.

It comes not only from industrial sources but from groundwater and asbestiform rock, as well as from asbestos-cement pipe and from air contamination in large cities.

It is a national problem.

NEED FOR DEMONSTRATION PROGRAM

Mr. Chairman, I must stress that this is rightfully a demonstration program.

A variety of filters exist for individual taps, and have been installed in Lake Superior communities in firehouses, schools, restaurants, tourist centers, and other places visited by the public.

But private citizens cannot afford their maintenance, nor do they solve the problem of humidifiers and other home uses of water.

The corps, EPA, and a private consulting firm jointly designed and operated a small pilot plant, testing various combinations of techniques on a very small scale.

But no testing has been done at the commercial level. We don't know how effective the equipment will be, nor what the economics are.

CONCLUSION

Mr. Chairman, we are dealing with the possibility of a severe health hazard of national dimensions; we have the technology, on the shelf, ready to be tested on the commercial scale.

We cannot afford to wait the 5 to 10 years required for sound scientific investigation in the hopes that the results will be negative or—a more imminent possibility—until the health effects of ingested asbestos are manifested in the general population.

The first cities to build commercial scale plants will be the laboratory for the whole country. The Nation therefore has a stake in the results of this demonstration, and should help those cities—whose citizens had no role in the original contamination—build the demonstration plant.

I therefore respectfully ask that you give this request, for $7.5 million, to demonstrate the technology and economics of asbestos fiber removal, your full and favorable consideration. Thank you.

ASBESTOS IN POTABLE WATER SUPPLIES

EPA has stated that asbestos in varying amounts has been detected in the potable water supplies of the following cities. Earlier EPA testimony suggested that further studies would most likely reveal asbestos in other supplies as well.

Duluth, Minn.	Erie, Pa.	Denver, Colo.
Columbia, S.C.	Newport, R.I.	Seattle, Wash.
Chattanooga, Tenn.	Little Rock, Ark.	San Diego, Calif.
Anchorage, Alaska	Savannah, Ga.	Globe, Ariz.
Jackson, Miss.	Buffalo, N.Y.	Long Beach, Calif.
Amarillo, Tex.	Wilmington, Del.	Providence, R.I.
North Troy, Vt.	Tuscaloosa, Ala.	Wichita, Kans.
Enosburg, Vt.	Yuma, Ariz.	Memphis, Tenn.
Eden, Vt. (spring)	Boston, Mass.	Saginaw, Mich.
San Francisco, Calif.	New York, N.Y.	Silver Bay, Minn.
Indianapolis, Ind.	Philadelphia, Pa.	Two Harbors, Minn.
Kansas City, Mo.	Atlanta, Ga.	Beaver Bay, Minn.
Clarksville, Tenn.	Chicago, Ill.	
Jersey City, N.J.	Dallas, Tex.	

Mr. OBERSTAR. The legislation to which I have reference is the Safe Drinking Water Act passed by the Congress last year. The administration requested $25 million in this year's budget for establishment of standards under the provisions of this act, but didn't request a single dime for construction of demonstration grant projects.

The committee report of the House Interstate and Foreign Commerce Committee specifically referred to the situation in Lake Superior when it said:

> An example of the type of situation which the committee intends to receive priority funding is the removal of submicroscopic asbestos particles from the drinking water supply of Lake Superior.
>
> A Federal interagency task force is presently examining the problem. The committee intends that this provision be used to support and extend the task force's effort.

And then authorized $7.5 million for demonstration projects for 1975 which has already passed. Now, we are talking about fiscal 1976, $7.5 million; and $10 million for fiscal 1977.

The purpose of this section of the legislation is specifically to help communities develop the technology they need to remove these incredibly small particles that are toxic that can be hazardous to health from the drinking water supply.

No known technology exists. There can be removal of particles on a very small basis, you know, from your household drinking water tap for instance. There are small size filters made by a variety of companies. Nuclepore Corp., and others; filters that can be used on a small basis, but there is no technology to help a community remove asbestos particles from major drinking water supply sources.

Duluth, Minn.; Two Harbors, Minn.; Silver Bay, communities along the north shore of Lake Superior, which has been infested by asbestos particles so small that 500 of them laid end to end would cross the point of a pin.

They cannot be detected by optical microscopy but can only be discovered by electron microscopy and were discovered in the drinking water of Lake Superior a year and a half ago by the Environmental Protection Laboratory located in Duluth.

Now the question is, what is the health effect of these particles? The Environmental Protection Agency, the National Institute of Environmental Health Sciences conducted a seminar which I attended while I was administrative assistant to Congressman John Blatnik. Many scientists came in and gave their opinion of the effect of injected asbestos. They don't know.

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The report published by EPA and NIEHS goes into great detail on all the scientific demonstrations. A 400-page document. We don't know. Asbestos particles have been discovered in the water supplies of 75 other cities in the United States, and I have submitted for the committee record a list of those cities, a representative list of those cities that are affected to give you an idea of the range across the United States. It is a huge question mark.

These cities all over the country and the people living there are in effect a kind of laboratory.

Mr. BOLAND. I take it that the burden of your argument is that there ought to be a demonstration with respect to asbestos in drinking water, whether it is in Duluth or anyplace else?

Mr. OBERSTAR. That is right.

Mr. BOLAND. As you probably know, when Administrator Train was up here last week we got into this area. We are concerned with the fact that section 1444 has not yet been funded, nor have funds been requested.

EPA indicated there ought to be additional research before it gets into building demonstration plants. As you point out, there are a lot of other areas in the United States affected by asbestos in drinking water. Consequently, the question of whether or not there ought to be a $7.5 million demonstration plant in Duluth is something that they would not be able to pass judgment on now without additional research into the matter.

Mr. OBERSTAR. That is a typical agency attitude, Mr. Chairman. Let's wait; let's drag our feet; let's do some more study.

Mr. BOLAND. I am not sure it is, EPA only goes back to 1970. It was pulled together by combining activities from other agencies. I would have some difficulty agreeing with the statement that that is a typical agency attitude.

Mr. OBERSTAR. I have been working with them now for 2 years on this problem and I think Dr. David Ralph Niels would have a different attitude. I think his feeling is from a health standpoint we ought to move ahead.

Mr. BOLAND. That would be a typical attitude of someone in that particular area, too.

This is the first time this committee has had the EPA under its jurisdiction with respect to funding. I am rather impressed, even with the paucity of funds that it has, with the job it does, and I am particularly impressed with the way in which EPA is being administered by Mr. Train, in a very complex and controversial area. I recognize, and I am sure the other members of the subcommittee share the recognition, that the Safe Drinking Water Act did provide for demonstration grants and none of it has been made available to date.

I don't doubt for a minute we will need demonstration grants. The question is whether or not we need additional research into it first as to what needs to be done. I can understand your concern with it and we appreciate the fact that you have been in touch with this committee on not only this occasion, but numerous occasions, indicating the severity of the problem up in the Duluth area, and it is severe.

Again, it is a matter of whether or not there ought to be additional research and basic information. We will look at it.

Mr. OBERSTAR. I think, Mr. Chairman, also EPA is under constraint from OMB not to get into the building of water treatment plants and that also partly explains their position.

On a staff level, however, the people below the policy level of EPA have been working closely in my office with officials from the city of Duluth, have gone into every stage of their own development of technology, have assisted at every stage of development to the point where the city of Duluth is ready with a plan. They are ready to award a contract. They have no idea whether this is going to remove—this plant they will build will remove the particles from the drinking water.

Mr. BOLAND. How long has the problem been in the drinking water?

Mr. OBERSTAR. Probably since the Reserve Mining Co. began operations in 1965 but the discovery of asbestos was made almost 2 years ago now because we did not have the technology to research and discover such small submicroscopic particles in drinking water.

Mr. BOLAND. We appreciate your appearance. I am conscious of the fact that you have had considerable experience on the Hill because you do succeed a Member of Congress who voluntarily retired and who perhaps contributed as much in his particular area—public works and this area, too, and to his own district—as any man that I know. It was a pleasure for me to have served with him for so many years.

I think anyone who served with Congressman Blatnik would say he was a giant in the Congress and certainly a fine Member of the Congress.

He served not only his district and State, but his Nation, very well. We have been delighted to have you with us this morning.

Mr. OBERSTAR. I will try hard to do the same, Mr. Chairman.

Mr. BOLAND. Any additional information you have we will be delighted to consider.

Mr. OBERSTAR. Thank you very much. I do think this demonstration project can be of national benefit.

Mr. BOLAND. Thank you.

ST. ALBANS VETERANS' ADMINISTRATION HOSPITAL

WITNESS

HON. JOSEPH P. ADDABBO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW YORK

Mr. BOLAND. We are pleased to welcome our distinguished colleague form New York, the Honoroble Joseph P. Addabbo, who is also a member of the full Committee on Appropriations. I hope you will bring us up to date on how the St. Albans modernization is progressing. The committee has been very involved in making proper use of this facility, and is very much interested in it.

You may proceed in whatever way you like.

Mr. ADDABBO. Mr. Chairman, I welcome this opportunity to present to you and the members of the subcommittee my views on the need for full funding of the Veterans' Administration construction program

for the modernization of the former St. Albans Naval Hospital in Queens, N.Y. As a member of the Appropriations Committee as well as the Representative of the 7th Congressional District where St. Albans is located, I have a multiple interest in this subject.

During the past few years I have worked closely with several other members of the New York congressional delegation to establish a veterans hospital in the Borough of Queens. We worked together and with an outpouring of broad-based community support to first save St. Albans Naval Hospital and later to convert the site of that facility into a veterans hospital. This was truly a bipartisan, united effort which mobilized community elements across every line.

The health needs of more than 2 million residents will be enhanced by the existence of this medical complex and those of us who have long sought a medical college for Queens County are now encouraged that one day that project can also become a reality.

In the interim it is imperative that the Veterans' Administration hospital receive adequate appropriations to enable it to achieve the goals in health care that the people of the area expect. At the present time more than 11,000 patients a month receive medical attention at the outpatient facility connected with the former St. Albans Naval Hospital. That care is continuing due to the negotiations between the Navy and Veterans' Administration a year ago this month. This is vital medical care that could not be assured to the retired military personnel and their dependents without this fine facility.

For more than 30 years St. Albans Hospital has played an important role in Queens and to all our military people. Now that facility has become a Veterans' Administration hospital thereby assuming an even more important role by promising to remain a long-term factor in the delivery of health care in Queens and not just a facility whose existence is threatened year after year by those who would have closed down this medical complex.

The future is still conditioned on this subcommittee's understanding of the vital part this Veterans' Administration hospital plays in meeting the total health needs of our community and on this subcommittee's recommendation for an appropriation in fiscal 1976.

Contracts for $6 million modernization projects will be let by the Veterans' Administration in a couple of months—300 nursing home care beds and 120 intermediate care beds will then be available for use. The hospital expects to care for 60,000 outpatient visits annually, six times the volume of care delivered when the facility was a naval institution.

The Veterans' Administration expects to expand the medical administration and pharmacy services and relocate the canteen service, add a new fire alarm system to protect patients from the kinds of catastrophies which have occurred in other older institutions, and to install two emergency power generators. These are essential, nonluxury items needed to make this a modern health facility.

Mr. Chairman, the history of the Veterans' Administration hospital in Queens has been long and heated but at this time we are united as a community and as a congressional delegation, I urge my colleagues on this subcommittee to act favorably on the appropriation request in order to enable the plans for modernization of the former St. Albans

Hospital to continue on schedule and to make this new Veterans' Administration hospital a modern health care institution serving Queens, N.Y.

Mr. BOLAND. We appreciate what you are saying very much.

HUD OPERATING SUBSIDIES

WITNESS

HON. CHARLES W. WHALEN, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OHIO

Mr. BOLAND. We are delighted to have with us now Mr. Charles W. Whalen, Jr., a Member of Congress from Dayton, Ohio, probably one of the best planned cities in the United States, represented by one of the best Members in the Congress.

You are appearing with respect to HUD operating subsidies. This year there is something like $525 million requested for operating subsidies. As you know, operating subsidy is of recent vintage and has been escalating over the years and will continue to escalate. I don't know how some of the local housing authorities are going to continue to meet their obligations without an increase in this area. I don't know exactly how many local housing authorities are in difficulty. I remember Secretary Romney, 4 or 5 years back, indicating there were a dozen or so in the red. He said in a few years it will be many times that. Now it is up around 12,000 to 15,000 that are in trouble.

We will be delighted to hear you.

Mr. WHALEN. Thank you, Mr. Chairman.

I will submit my statement for the record and will take a few minutes to summarize it.

[The statement follows:]

Mr. Chairman, it is a pleasure to appear before your subcommittee today on a matter of great urgency.

I would like to discuss the problems which the substantial increase in utility costs (primarily electrical service) has created for the 236 housing program.

It is not my intention to reopen the debate over the merits of the 236 housing assistance program. You will recall that former Housing and Urban Development Secretray George Romney terminated this effort in January 1973. Calling it too costly, Secretary Romney announced the administration's intent to develop a better program.

I concede that the new section 8 housing plan, which the Congress enacted last August, is clearly superior to its predecessor 236 program in at least one respect; namely, the provision calling for annual review and adjustment in operating costs, including utility charges.

THE PROBLEM

Notwithstanding the fact that there is a new housing assistance program, a substantial inventory of 236 housing units (approximately 500,000) still exists. Many 236 projects are in deep financial trouble—on the brink of default or abandonment—due solely to the rapid and unanticipated rise in the cost of utility service.

The 236 program was designed to subsidize mortgage interest. The subsidy is based on the rents paid to the project owner, the rental fee being computed on a basic formula of 25 percent of occupant income. The trouble is that HUD views the concept of rent as exclusive of utility costs.

Even if the administration changes its attitude, each existing project is bound by a firm contract which would have to be renegotiated. While such renegotiations may be initiated, these actions will not necessarily bring the immediate relief most of these projects require.

In my district, for example, there are a substantial number of well-conceived and well-managed projects which are in financial trouble solely because of higher utility rates. These rate increases have had a twofold effect.

First, in multiple meter projects many tenants move because they cannot pay their total rental costs since the utilities are charged to them directly (as opposed to being included as part of their rent). Thus, vacancy rates are steadily increasing in multiple meter complexes.

Second, in single meter projects, many sponsors are being forced into default by their inability to meet both operating costs and mortgage payments. As leases expire, managers of those projects which have avoided bankruptcy pass on increased costs to tenants. Since most 236 occupants receive limited income and, therefore, cannot afford to allocate more than 25 percent of their budget for rent, vacancies have begun to mount.

POSSIBLE APPROACHES TO THE PROBLEM

What can be done to prevent these wholesale desertions with the resultant forfeiture to the Federal Government of many 236 projects throughout the country?

Section 212 of the Housing Act of 1974 offers three possible short-term solutions. I offer them for the subcommittee's consideration.

The first option is the so-called deep subsidy. This permits a decrease in rents (as HUD defines them) to 20 percent of the tenant's income. The effect is to offset, in part, the utility charges paid by the tenant.

While this represents a step in the right direction it should be recognized that:

(*a*) A reduction from 25 percent to 20 percent of income for HUD defined rent in many instances will not cover the amount of the utility cost increase.

(*b*) This deep subsidy provision only applies to the 58,000 units which were yet to go under contract at the time of passage of the new omnibus housing bill (Aug. 22, 1974). Therefore, this would leave unassisted the 440,000 units which were under contract at the time of H.R. 15361's enactment.

(*c*) The act provides that the deep subsidy can go no lower than 20 percent of income, but in no case can it go below the cost of utilities. The problem is that in many instances the utility costs alone already exceed the current rent.

(*d*) Finally, it has been suggested that the combining of this provision with the rent supplement program in the same project may be incompatible without additional legislation. If this analysis is correct, no immediate relief would be available to tenants and/or project sponsors.

Due to these inhibitions, the deep subsidy approach is not a viable one in terms of resolving the utility dilemma. Thus, other provisions must be examined as possible answers.

A second, and more immediate approach is the operating assitance clause found in section 212(3) of the 1974 Housing Act.

If rentals charged families rise to 30 percent of income, an operational subsidy can be invoked. Thus, increased utility and local property tax costs can be reflected in higher rents which, in turn, are mitigated by increased subsidy payments.

This plan, however, is not without problems. One is the issue of timing. Rents have to be raised in order for tenants to qualify. Then the project sponsor has to try to avoid bankruptcy between the time it raises rents—which sparks tenant departures—and the time in which HUD comes through with operating subsidies.

Another factor which could slow down the application of this remedy is the time required to process income certifications (forms indicating that at least 30 percent of a lessees' income is being expended for total rent).

The third possibility, one which might work effectively in tandem with the second option, is to piggyback the rent supplement program onto the 236 program.

If section 101 of the Housing Act of 1965 were available to 236 tenants, apartment managers could raise rents to offset increasing utility costs and there would be a commensurate boost to the rent supplement contract.

Presently, 236 project owners must file annual financial statements, submitting documentation requesting rent increases. It would not be difficult to process, concurrently, a rent supplement contract for the same project.

Incidentally, the subcommittee must bear in mind that present statutes limit the use of rent supplements to 40 percent of any 236 project. I will recommend to the authorizing committee (Banking and Currency) that this restriction be lifted.

RECOMMENDATIONS

I suggest the subcommittee take two courses of action to deal with the utility problems affecting 236 sponsors/tenants.

First, it is my understanding that as of last August there was still available $200 million in unallocated 236 contract authority. The Housing and Urban Development budget indicates that it is the Department's intention to use this unobligated balance in fiscal year 1976. These funds should be set aside to initiate the operational assistance permitted by section 212(3).

Second, HUD's fiscal year 1976 budget document lists a $714 million balance in unobligated rent supplement contract authority. The subcommittee should earmark this unused authority to assist 236 tenants.

DEFAULTS

I am also compelled to express concern for those 236 projects whose many other problems have been compounded by mounting utility costs. For these projects skyrocketing utility charges have been the death knell. To deal with the growing number of 236 defaults, HUD must establish an early warning system to detect potential turnbacks and forestall them through expeditious refinancing.

As the members of the subcommittee know, the level of defaults triggered largely by the utility cost problem has been so high that HUD has placed a moratorium on accepting defaults.

For many reasons refinancing of such projects is far more sensible than default:

First, the process of default is costly in its administration.

Second, defaulted property tends to cycle through vacancy, abandonment, and vandalism.

Third, once HUD assumes management of a project, it contracts the responsibility to professional defaulted property managers whose interests often are other than improving the value of the property.

Fourth, as one local Government official recently noted, "Default is in effect condemning a project to being never worth a damn forever."

It would be far less expensive to refinance these projects before default occurs. Thus, it is hoped that this subommittee will provide an adequate sum to cover such refinancings.

CONCLUSION

I would like to make two final observations. First I applaud HUD for holding administrative hearings on these questions earlier this month. However, it is now time for action.

Second, I must point out that this whole matter is broader than the tenants' problem in a 236 project which is experiencing escalating utility costs.

At issue is the credibility of our nationwide assisted-housing programs. If the adverse impact of spiraling utility rates is not addresed immediately, substantial numbers of federally supported housing units will be vacated across the country.

I reiterate my opening comments. We are not here to debate the 236 program. Our only interest is in keeping the assets represented by our Nation's assisted-housing inventory from becoming a liability. The effectiveness of all our federally subsidized housing programs requires constant congressional care and attention. I am asking this subcommittee to exercise that attention through the budgetary process.

Mr. WHALEN. I appreciate the fact that our public housing authorities are in trouble. However, Mr. Chairman, my appearance here today is devoted to the 236 program which is also in very serious trouble. The trouble, Mr. Chairman, stems, of course, from the greatly increased utility rates throughout the country.

I am not here to belabor utility companies. They are subject to State law and their rates are determined by either local authority or State authority, but it is a fact of life, nevertheless, that the greatly increased rates are plagueing some 500,000 units that exist throughout the country. The problem is dual.

First, there are those projects where the utility costs are included in the rent. Now, the project sponsors, due to the great increase in

their utility costs, are unable now in many instances to meet their operating costs, not to mention their mortgage and interest payments, so we are seeing the probability of a large number of these projects going into default.

The other situation occurs where the tenant not only pays the rent, but is also charged directly for utilities. In these instances the tenants are finding, in many cases, they are paying more in utility charges than they are in rents, so many of these tenants are fleeing from 236 projects in spite of the fact that they have leases with the management.

I think the question, Mr. Chairman, we have to face simply is the fact that the 236 program, which was designed to provide adequate housing for those in the lower- and middle-income categories, is not working today due to the problem of increased utility rates.

Second, we are going to see, in fact we have already witnessed, a number of projects which are going into default and which are being turned back to the Federal Government.

I think the question then arises, what can we do about this to resolve the problem?

I think there are three possible approaches. Let me just cite them.

I think they are made possible by passage last August of the Housing Act of 1974. One is the so-called deep-subsidy approach. This goes into effect when it is determined that 20 percent rather than 25 percent of income shall be allocated to rent. Now, this might help in some instances those who are faced with higher utility costs, but there are several problems and I won't enumerate them other than one.

This applies, as I understand it, only to those new projects which have come into being after the passage of this bill last August, so this means that only about 46,000 of the 500,000 units would really be eligible for this kind of assistance.

I understand HUD authorities are looking to this as one possible answer, but I would discard it as not being a very viable alternative.

I think the other two alternatives which I will mention hold greater promise. One is the operating assistance provision, the section 212(3) of the 1974 act.

This is triggered when the authority increases the rent and the rent payment on the part of the tenant amounts to 30 percent or more of his income, and he is eligible for this operating assistance. Using this provision then, Mr. Chairman, of course, what we would see is that the increased costs as a result of either rising utility prices, increased—in some instances increased property taxes, could be passed on in the form of higher rents and then this would be automatically triggered.

I might just point out that really the problem is compounded by the fact that in defining rent, HUD does not include as one of the elements of that cost, utilities.

I would point out that there are some problems here, if this 212(3) approach is used. One is a matter of time. There is the possibility that when the rent is increased that before any assistance could be given there may be a number of tenants forced to flee from that project. Of course, there is always the timing involved in processing; the certification whereby a tenant has to affirm the fact, put it on record, that 30 percent or more of his income is going out in rent.

Now, the other approach I think could certainly be piggybacked on top of the 236 and this is the rent supplement program, Mr. Chair-

man. Here the rent supplement program does permit the inclusion of utility costs as an expense, a housing expense.

What could happen here, of course, is that the management could increase the rent to include the increased utility costs and then a new rent supplement contract could be negotiated whch would keep the 25 percent figure for the tenant, the income figure.

Mr. BOLAND. You have been in touch with the people in this area because this is a problem that has been getting more serious every month.

Mr. WHALEN. They are concerned.

Mr. BOLAND. They are trying to come up with some solution to the problem. It might very well be that section 212(3) of the 1974 Act would give some relief in this area.

Mr. WHALEN. I might make two specific suggestions in that connection.

First, I understand there's about $200 million in unobligated funds for the 236 program. I would suggest that your committee might consider applying this to the operation assistance section, 212(3), to assist those in the 236 project to meet their utility costs.

Second, I understand also there's about $714 million of unobligated funding for the rent supplement program and you might with to consider using all or probably part of this to apply it to those in 236 projects.

Incidentally, I would point out—I have made note of this in my written statement—only 40 percent of the projects can be eligible for rent supplement funds. At least it provides partial assistance until such times the authorizing committee might see fit to make 100 percent eligibility.

Mr. BOLAND. Thank you very much. We appreciate your statement and your appearance here. This committee recognizes the problem that the Department of Housing and Urban Development has in this area. As you have indicated, and we know, the problem grows in the 236 area, not alone in your area, but throughout the United States, It is presenting a very difficult problem for sponsors and for these projects. HUD is now the Nations' biggest landlord and that situation is increasing.

We appreciate very much your appearance. Thank you very much.

HOUSE ASSISTANCE COUNCIL

WITNESS

HON. GILLIS W. LONG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF LOUISIANA

Mr. BOLAND. We are delighted to welcome our colleague from the State of Louisiana, Gillis W. Long, who appears with reference to the Housing Assistance Council.

We will be glad to hear you.

Mr. LONG. Thank you very much, Mr. Chairman.

I would like to, if I may, rather than submit my statement for the record, if I could take about 10 minutes of your time I think it would take about that time for me to go through this in some detail.

I do this because of the fact that the district I represent is one that I think is particularly penalized and it is typical of many in the United States because of the lack of expertise that is required to take advantage of many of these programs, not only the one with respect to housing, but many others.

To give you a little background, my district is about 200 miles long. It has 50 some odd towns in it. The largest town and only town of any size is less than 50,000 people. So you can see that it is not really a sophistciated area. It has a high rate of unemployment. It has a high rate of illiteracy and a very low average per capita income. So it is one of those where it is one of the pockets we find scattered all over the United States. It is typical of those that in many instances get overlooked because they do not have a wheel to sqeak so somebody can pour grease on it.

I think these have been overlooked to some extent in the past. I wanted to go into some detail in matters which I think might be of interest to you gentlemen.

My purpose today is to request that funds be set aside in HUD's 1976 fiscal budget to insure continued Federal support of the Housing Assistance Council—a proven instrument for providing rural housing opportunities through demonstration across the country.

It was deeply distressing to me to learn HUD had decided to disregard the express authority it has to operate this program, and to discontinue funding after the current OEO grant expires at the end of this calendar year. But I cannot, in all honesty, say it was surprising.

While the Department of Housing and Urban Development has been entrusted with the responsibility for providing "a decent home and a suitable living environment for every American family," its efforts in rural areas have been woefully inadequate and its enthusiasm for working with rural programs has been—at best—wanting.

The task of providing decent housing for all admittedly is not the easiest nut in the world to crack. But it is not the hardest either. It's difficult to understand how a national housing policy could ever expect to succeed when the needs of those areas bearing the greatest share of the problem—rural and small town America—have been neglected consistently in the administration of that policy.

I would just remind anyone who may still conjure up a vision of crowded urban slums when talking about poor housing that rural areas have triple the incidence of substandard housing as urban areas, twice the incidence of poverty, and—I would be willing to venture—every single incidence of outdoor plumbing.

The intensity of the problem is aggravated because rural areas lack the financial institutions that are represented in the cities to deliver mortgage credit, and they lack comparable housing, renewal, and planning authorities to deliver any appropriated funds that may be available.

When you add to this the historically poor performance of HUD in rural areas, the magnitude of the problem nearly defies description.

How can you explain, for example, the fact that HUD spends $6 of Federal housing and community development money in the cities for every dollar it spends in rural communities?

There has been limited rural activity in HUD's public housing programs and some sporadic interest in Indian housing. But in terms of

the important FHA elderly housing programs, rent supplements, home-ownership and multifamily rental programs, HUD has never allocated nearly enough attention and resources to rural areas.

In recent years, there have been worthy congressional efforts to reverse the general imbalance of national problems and resources. Perhaps one of the most notable examples was the Rural Development Act of 1972, which—among other things—required interdepartmental cooperation and coordination through the Secretary of Agriculture to make sure rural programs were receiving significant stature in each Federal department.

That was 3 years ago. Yet the general impression filtering down to Congress today is that officials at HUD are still not aware the department has responsibilities in rural areas. As far as anyone I know has been able to determine, there is no single official who has comprehensive and final responsibility for rural housing within the entire department. There ought to be some identifiable person, whether he be an assistant secretary or deputy assistant or director of whatever—who is accountable for services to rural America.

As it stands now, the very structure of HUD—with its area and regional offices located only in major cities—tends to reinforce its inclination to ignore rural areas, and in any case, makes it more difficult to service them.

With the enactment of the Housing and Community Development Act, Congress moved a step closer to the goal of serving all housing needs—regardless of where they occur, or to whom. It has numerous progress provisions that bring about a greater parity between urban and rural housing opportunities. But as in the case of the Rural Development Act, any measure of success necessarily depends on the willingness of the law's administrators to live up to the spirit of the law and make sure these programs really work in rural areas.

Mr. Chairman, it seems to me that the signals we are getting right now in this respect are not good.

As you and I know, the methods of providing Federal subsidies for housing and community development were dramatically altered in the 1974 housing bill, and I think we would be fooling ourselves if we didn't realize the potential danger of widening the gap between aid to urban areas and to rural ones, rather than closing it.

For example, HUD is administering the only large-scale, deep subsidy housing program of the Federal Government—public housing. Up until 2 years ago, when this program virtually came to a standstill as a result of Presidential impoundment, public housing was one of the most successful and fitting programs for rural areas because it was geared to the needs of the rural poor and was effectively getting down to them. But with the new leasing program, designed to replace the conventional public housing delivery system, a number of question marks stand out about its workability in rural America. Unless HUD is compelled to live up to its responsibilities in rural areas, many families with incomes too low to participate in other housing programs surely will be left abandoned.

I believe HUD's past history, combined with the changes and potential pitfalls in the Housing and Community Development Act make it more important than ever to have a rural advocate within

or around HUD—one to insure that congressionally mandated programs are effectively put to use in rural areas.

This is the type of role the Housing Assistance Council has played since its inception in late 1971. And if HUD is allowed to eliminate this program, there will be no comparable mechanism to take its place.

Back in the midsixties, I was fortunate enough to serve as Assistant Director of OEO and participate in the early formative years of that agency. In the time I spent there, I had daily, firsthand experience with what programs can do when they are freed from traditional bureaucratic molds and focused on helping people in need—and this is what the Housing Assistance Council is all about.

It was created to improve the ability of rural America to obtain a reasonably equitable share of housing resources precisely because the traditional government methods had failed to accomplish this—and had failed miserably.

In the tradition of all OEO-sponsored programs, the Council was intended to be developed and tested internally, but once established, to be delegated to an old-line agency. Such programs were never intended to conform to the functional structure of these agencies. If they did so, they would lose that special characteristic which makes them catalysts for new approaches to neglected problems.

The legislative history surrounding OEO clearly recognizes that some agencies could prove reluctant to carry out the programs for which they would ultimately assume responsibility. Ideally, there was to be a trial period during which OEO would monitor the agency's progress in integrating the program until it began functioning properly.

It was obvious from the beginning that the biggest obstacle to assimilation would not be one of structure or organization—but one of habit.

Since OEO is not now in a position to feasibly carry out this transition role as envisioned, I think it is our responsibility in the Congress to fulfill the oversight role in this instance, to earmark funding until this program can take root in its new environment, and to continue observing its operation to make sure it is constructively used.

It is well to remember that the HAC program was conceived and funded by OEO as a demonstration program to show that—among other things—a "well-funded national program can help focus attention on problems and solutions related to low-income housing."

The Housing Assistance Council's efforts to demonstrate this concept are evident in and around my district. Through its efforts, over a quarter of a million dollars has been committed to three local nonprofit housing development corporations in St. Francisville, Wisner, and Palmetto, La. Each of these communities has been struggling for years against the intransigence of the bureaucracies supposedly established to help them, and against their own shortcomings in financial and technical resources.

Because of the flexibile combination of program tools at its disposal, HAC was able to catalyze these communities, which have faced continuing frustration and broken promises in surmounting their housing problems.

The Hardwood subdivision in St. Francisville, which I represent, consists exclusively of 60 houses in dilapidated condition. Several

years ago, a private developer attempted to organize a complete renovation, but he lacked the necessary resources—a problem common in rural areas, particularly the South.

Because HAC was willing to take a financial risk and was capable of working flexibly in Hardwood, where other housing organizations had been unwilling, the project is now moving. A previously reluctant Farmers Home Administration stepped forward with additional funds, and work will soon begin demolishing what's there and building new sales and rental homes. Of course, this kind of development will also have a ripple effect on the local economy, and it is expected that—in the three communities I have cited here—$8 to $9 million worth of salaries and business will be generated from the initial investment. I don't think I have to tell you how much that can mean to a small town.

Mr. CHAIRMAN. I believe there is a growing concern on the part of urban and rural Members in the Congress about the relationship between the quality of life of rural Americans and that of their urban cousins. We are finally beginning to recognize that if problems are not attacked where they exist—in the countryside—they will flow into the neighboring cities to be compounded by size, crowding, and crime into a full-scale urban crisis.

The Congressional Rural Caucus, an ad hoc group of House Members dedicated to the orderly growth and development of rural communities, now numbers 95 members, and I believe this is a very clear indication of that heightened concern and awareness.

As an executive committee member of the rural caucus, I am particularly concerned that the departments of the Federal Government—such as HUD—be induced to serve rural areas as well as urban. And I consider the continued existence of the Housing Assistance Council, in its present form, vital to this effort in the coming years. This is why I am asking your committee to earmark the full $1.5 million which has been requested to operate the HAC program for the next 2 years.

Thank you.

Mr. BOLAND. Thank you very much, Gillis, for a rather persuasive statement.

I take it that you are distressed with the manner in which the Department of Housing and Urban Development is handling rural housing.

This committee has some concern with that issue and has expressed its concern to the Department. We recognize the fact that a great number of rural communities, as you pointed out in your statement, need the kind of assistance that has been offered and given by the Housing Assistance Council.

We appreciate your statement very much.

Mr. TALCOTT. I would like to say he is a very persuasive advocate of his position. What was the name of those three towns?

Mr. LONG. St. Francisville, Wisner, and Hardwood. Hardwood is in my district.

Mr. TALCOTT. I just wanted to get the emphasis on the record of those important places.

Mr. SHIPLEY. Mr. Long, you spoke in your statement about having someone in the Department responsible so that we could have someone to go to directly that would be responsible for the rural programs.

This would not require legislation, I assume, just a directive by the Secretary?

Mr. LONG. That is all that it would require. It is basically one of the things of where everybody's business is nobody's business. Consequently you go from one place to another and you cannot get an answer. All she has to say is she delegates that person with that particular responsibility under the act that has been created.

Mr. SHIPLEY. I think your point is well taken. I will be glad to help.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

WITNESS

HON. WALTER E. FAUNTROY, A DELEGATE IN CONGRESS FROM THE DISTRICT OF COLUMBIA

Mr. BOLAND. We are pleased to call to the table our colleague, the Honorable Walter E. Fauntroy, the Delegate in Congress from the District of Columbia.

Walter, we understand you appear with reference to HUD appropriations.

Mr. FAUNTROY. I do, Mr. Chairman.

Mr. BOLAND. We appreciate hearing from you.

Mr. FAUNTROY. Thank you, Mr. Chairman.

Mr. Chairman, I am most appreciative of this opportunity to appear before the Appropriations Subcommittee on Housing and Urban Development. As a member of the Subcommittee on Housing of the Banking and Currency Committee, I am acutely aware of the intentions of some of the legislation which we have proposed and for which this committee has the responsibility of assuring that the Departments carry out in their requests for expenditures. Your task is immeasurably harder than the one which we have, for you must consider the fiscal impact of the expenditures upon our whole economy and not just the needs of the constituencies that look to the Banking, Currency and Housing Committee for solutions to their problems.

Yet, it is because of your unique responsibilities in which you must examine and establish priorities, that I appear today. As you know, utility rates are rising at an almost astronomical rate. In the Washing area, Pepco has a rate increase request that averages about 25 percent. Some of this increase is directed toward our section 236 multifamily rental projects because they are a portion of the total consuming market. Additionally, they will, in some cases, be faced with even larger than average increases since the regulatory commission and Pepco, in its rate structure development, are being pressured to increase the base rate for certain bulk power users unless they can demonstrate clear economies of scale. Our elderly and low-income citizens cannot absorb additional rent increases to cover the costs of utility rises. I have been quite frankly told by the operators of these projects that if the projected increases, as they understand them, are implemented, some of them will be forced to foreclosure.

This state of affairs is, of course, by no means unique to the District of Columbia. At the beginning of this year there were an estimated 300,000 units of federally subsidized multifamily projects on the verge of having their mortgages foreclosed as a result of these increased operating costs.

Yet, there is the absence of an expeditious and firm policy decision by the Department regarding the provision of operating subsidies or other forms of financial assistance to these nonprofit projects. I am aware of the recent actions taken by the Department to provide temporary mortgage forebearance to those projects which are encountering fiscal difficulties and of recent efforts to obtain advice regarding the establishment of approaches to provide more permanent relief. These responses, however, are no answer to the immediate problem of meeting the presently due bills from the utility companies. What is needed are operating subsidies.

I would hope that this committee would inquire of HUD as to the reasons they have not requested 236 operating subsidies as authorized in the 1974 Housing and Communty Development Act. If HUD feels they will not need operating subsidies, then I believe we must know how much of the unexpended contract authority will be utilized for alleviating the burdens upon these projects.

This is an expenditure that must be given an appropriate priority in our spending. We have invested substantial governmental funds in these projects, and it is not too much to ask that we be concerned with their ability to remain viable economic units that accomplish the task we have given them.

I have explored other avenues by which the rate increases can either be lessened or the taxes forgone. None of these proposals is as adequate a response as would be a subsidy to assure that the bills are paid, the services provided, and the units' financial integrity guaranteed. Anything else would be makeshift.

Additionally, I would like to express my interest and concern over the allocation procedures for the $662 million in section 8 subsidy funds being requested by the Department for fiscal year 1976. HUD has stated that a "fair share" formula was applied in the allocation of fiscal year 1975 section 8 funds throughout the Nation and that this formula included consideration of both housing needs and the costs of housing construction in geographic housing market area. The formulas seem, however, to be inadequate.

With respect to the Washington metropolitan area, the HUD has informed me and my area colleagues that no additional funds were provided to reflect our high housing costs although additional moneys were allocated to the New York area. In making this statement, HUD representatives informed us that our area was not provided any compensating funds because our housing costs were so close to the national norm. I seriously question this conclusion, and I seriously question the Department's wisdom in continuing to use an allocation approach based on assumptions that give rise to these results.

For example, in the area served by the Little Rock area office which received $1.5 million less in subsidy funds than did our area, approximately 1,600 more households could be assisted in new or rehabilitated two-bedroom garden units than could be assisted in comparable units in the Washington metropolitan area.

Looking at the basis and formula which the Department used in arriving at our allocation, I find that when you take the average public housing prototype cost that Washington falls 14th among the cities of the Nations. Had they included also the average fair market rent, they would have found us ranking No. 4 among the cities of the country.

Had they used the high cost percentages approved for use in establishing maximum HUD multifamily mortgage units for base cities by rank order we would have been No. 2.

At our request, the Washington Metropolitan Area Council of Governments determined with their own projections and discussions that the "national average prototype costs" utilized is the "national average prototype costs" for the construction of a standard, two-bedroom walk-up conventional public housing unit. This formulation fails to account for land costs, water and sewer taps, site improvements, or other various fees.

These costs are, however, theoretically accounted in the fair market rent structure established, but not used, by HUD. I am distressed that HUD would establish a system of fair market rents and then fail to use them until they have more experience with the validity of the figures, I could accept that as reasonable if they would adjust their other formulas to more accurately account for differentials in costs that are excluded in public housing prototype costs. I hope that you will raise this issue with HUD and seek an answer prior to continuing to allow them to use formulas that appear not to reflect the intent of the Congress.

I would, finally, like to indicate my support for the full and adequate funding of the section 701 comprehensive planning program. This program has provided a mechanism for the establishment of many innovative and cooperative planning efforts vital to the implementation of our national goals in a wide variety of areas. Over the last few weeks, Congress has taken the lead in proposing continued funding of this program. I would sincerely hope that this action provides an indication to HUD of the importance of the 701 programs and of Congress concern that sufficient funds be provided for all eligible participants.

Mr. Chairman, I again want to express my appreciation for your allowing Members of the Congress to appear at his time. There are few more important programs in our Nation than those which provide our people with decent housing at prices which they can afford. While every person cannot live in a mansion or even, peraps, own their home, they should be able to believe that ours is a society committed to assuring that no one will be housed in unclean, unsafe, uninhabitable facilities.

In a city, the Nation's Capital, that needs more than 100,000 housing units at this very moment, I know that you are both cognizant of the issues and that you will be responsive to the needs as I have expressed them.

Mr. BOLAND. Thank you very much, Walter.

You raised some questions, of course, that are important and are pertinent with reference to the 236 operating subsidies which is authorized by the Housing and Community Development Act of 1974. This is a matter, I think, that they are looking at. It comes about as a result of a serious condition which a great number of 236 projects around the Nation are having. A great number of them are in difficulty and a great number are going back into the hands of HUD.

I think HUD is looking at this problem. I think a great part of it, as you said, is due to the increasing fuel costs for these projects.

I don't think you will find disagreement among the members of this committee that this is an area that has to be adjusted. We think that is one of the ways to do it.

Mr. TALCOTT. I have no questions.

I would commend the gentleman on his remarks. The operating costs are a problem.

This is partly the responsibility of the people who live in those units to keep their costs down because the Federal Government just cannot keep paying the operating costs just open ended.

Another thing, HUD is not responsible for providing housing that is clean. That is up to the people who live in it.

Mr. FAUNTROY. Precisely.

Let me say I have considerable personal experience in these nonprofit units. I was a developer of a project in Washington, the Shoreham renewal project, where we have nearly 1,000 of subsidized multifamily units up and operating and in danger of running into foreclosure because of the rising utility costs. Believe me, we, like so many of these units around the country, are struggling to not only keep our utility use low, but also to manage the costs, the rising costs of it.

My question, the thing that really puzzles me, is why HUD has not even requested the appropriations which we have authorized and which, against the background of extensive hearings and well-considered judgment by our Banking and Currency Committee and the Congress, subsequently——

Mr. TALCOTT. There is a problem of fiscal deficits. I am sure you are familiar with that.

Mr. FAUNTROY. Yes; but as you understand, the danger is that if these 300,000 units go into foreclosure not only do we lose the use of these buildings in which we have invested so much, but what does that do to the pension funds and the banking institutions that would be faced with that enormous drain.

Mr. BOLAND. As you know, HUD is getting a hard look at a number of local housing authorities around the Nation. Some need to be looked at very closely, I think.

Mr. TALCOTT. Especially the big cities.

Mr. BOLAND. In my judgment—and this is a personal judgment but it might also reflect the opinion of the subcommittee—we do not think that the Department of Housing and Urban Development has had a better manager in housing management than it now has in the person of Secretary Crawford. As you know, he has had considerable experience in this very area. His concern is with the manner in which local housing authorities have been operating. A great number of them are deficient. A great number of them are overloaded with personnel. The operating subsidies for public housing comes to better than $525 million—a half billion in fiscal 1976.

Before HUD starts to indicate its willingness to provide operating subsidies for the 236 program, I would think they would have to come up with some pretty hard answers.

You do raise some important questions and we appreciate very much the fine statement you have given to this committee.

Thank you very much, Walter, we are delighted to have you.

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TABLE I

AVERAGE PUBLIC HOUSING PROTOTYPE COSTS FOR A TWO BEDROOM WALKUP NEWLY CONSTRUCTED UNIT IN EACH HUD AREA OFFICE JURISDICTION BY RANK ORDER OF COST*

RANK ORDER	AREA OFFICE	AVERAGE PROTOTYPE COST	RANK ORDER	AREA OFFICE	AVERAGE PROTOTYPE COST
1.	Seattle, Alaska	$19,150	34.	Fargo, N.D.	$13,790
2.	Honolulu, Hawaii	18,733	35.	Seattle, Wash.	13,636
3.	New York, N.Y.	18,641	36.	Richmond, Va.	13,609
4.	Boston, Mass.	17,662	37.	Omaha, Neb.	13,450
5.	Newark, N.J.	17,050	38.	Baltimore, Md.	13,413
6.	Buffalo, N.Y.	16,875	39.	Salt Lake City, Utah	13,308
7.	San Juan, P.R.	16,479	40.	Coral Gables, Florida	13,300
8.	Manchester, N.H.	16,150	41.	Portland, Ore.	12,971
9.	Hartford, Conn.	15,990	42.	Los Angeles, Calif.	12,840
10.	Camden, N.J.	15,467	43.	Albuquerque, N.M.	12,828
11.	San Francisco, Calif.	15,457	44.	Topeka, Kansas	12,800
12.	Philadelphia, Pa.	15,455	45.	Knoxville, Tenn.	12,620
13.	Chicago, Ill.	15,290	46.	Louisville, Ky.	12,615
14.	WASHINGTON, D.C.	15,150	47.	Tampa, Florida	12,606
15.	Sioux Falls, Iowa	14,825	48.	St. Louis, Mo.	12,540
16.	Pittsburgh, Pa.	14,810	49.	Denver, Colorado	12,533
17.	Cleveland, Ohio	14,786		Memphis, Tenn.	12,533
18.	Phoenix, Arizona	14,653	51.	Oklahoma City, Ok.	12,383
19.	Grand Rapids, Mich.	14,572	52.	Atlanta, Ga.	12,133
	Springfield, Ill.	14,572	53.	Jacksonville, Fla.	12,100
21.	Columbus, Ohio	14,555	54.	Little Rock, Ark.	12,040
22.	Des Moines, Iowa	14,461	55.	Nashville, Tenn.	11,933
23.	Helena, Montana	14,393	56.	New Orleans, La.	11,867
24.	Wilmington, Del.	14,375	57.	Fort Worth, Texas	11,825
25.	Detroit, Michigan	14,340		Greensboro, N.C.	11,825
26.	Reno, Nevada	14,250	59.	San Antonio, Texas	11,661
27.	Kansas City, Kansas	14,183	60.	Birmingham, Ala.	11,550
28.	Milwaukee, Wisconsin	14,136	61.	Jackson, Miss.	11,539
29.	Casper, Wyoming	13,989	62.	Tulsa, Ok.	11,425
30.	Indianapolis, Ind.	13,906	63.	Dallas, Texas	11,270
31.	Spokane, Wash.	13,858	64.	Columbia, S.C.	11,185
32.	Minneapolis-St. Paul, Minnesota	13,857	65.	Lubbock, Texas	11,120
			66.	Houston, Texas	10,742
33.	Sacramento, Calif.	13,833			

NATIONAL AVERAGE PUBLIC HOUSING PROTOTYPE COST - $13,943

* see attached notes

Methodology, Sources and Explanatory Notes

Methodology: These figures represent a simple, unweighted average of the public housing prototype cost limits for a two bedroom walkup newly constructed unit as published for all market areas included within the jurisdiction of HUD Area or Insuring Offices as applicable. The sum of the dollar value of the prototype costs of all reporting market areas within a given Office was divided by the total number of reporting market areas to yield an average prototype cost for that Office. The average prototype cost for each Office was rounded to the nearest dollar. To obtain a national average prototype cost for a two bedroom walkup newly constructed unit, the sum of the dollar value of the prototype costs of all reporting market areas in the nation was divided by the total number of reporting market areas.

Source: Federal Register, Vol. 39, No. 97 - Friday, May 17, 1974, pp. 17678-17746.

Explanatory Notes:

- Several market areas utilized for public housing prototype cost limits were apparently deleted or consolidated in the delineation of housing market areas for the purpose of establishing Fair Market Rents. To insure comparability between the average prototype cost limits and average Fair Market Rents, the prototype costs for such housing market areas were included within the jurisdiction of the same Area or Insuring Office as were the Fair Market Rents. Except as noted below, the apparent consolidations or deletions included one market area each in New York City, Indianapolis, and Kansas City, and three market areas in Salt Lake City.

- For the purposes of establishing public housing prototype costs, HUD has delineated nineteen separate housing market areas within the Phoenix Office. For the purposes of establishing Fair Market Rents, however, only five such housing market areas have been delineated, and Fair Markets for two of these five market areas have not been published in either proposed or final form.

- The Marshall (Texas) market area is listed under the Dallas Area Office in the publication of Fair Market Rents, but under the State of Louisiana in the publication of prototype costs. For the purposes of this analysis, Marshall was included in the jurisdiction of the Dallas Office in both instances.

- In Los Angeles, San Diego and Santa Anna, a number of housing market areas have been delineated by HUD for the purposes of establishing public housing prototype costs which have not been delineated as housing market areas for the establishment of Fair Market Rents. To insure comparability between the average prototype costs and the average Fair Market Rents for these areas, all prototype costs for these additional housing market areas were included under the Los Angeles Area Office.

- For the purposes of establishing public housing prototype costs, HUD has delineated nine separate housing market areas within the Sacramento Insuring Office and seven separate housing market areas within the San Francisco Area Office. Fair Market Rents for two market areas in each of these Offices have not been published in either proposed or final form.

TABLE II

AVERAGE FAIR MARKET RENT FOR A TWO BEDROOM WALKUP NEW CONSTRUCTED UNIT IN EACH HUD AREA OFFICE JURISDICTION BY RANK ORDER OF RENT*

RANK ORDER	AREA OFFICE	AVG. FAIR MARKET RENT	RANK ORDER	AREA OFFICE	AVG. FAIR MARKET REN
1.	Seattle, Alaska	$390	34.	Albuquerque, N.M.	$246
2.	Newark, N.J.	378	35.	Topeka, Kansas	245
3.	Hartford, Conn.	365	36.	Portland, Ore.	242
4.	WASHINGTON, D.C.	348	37.	Sacramento, Calif.	241
5.	Buffalo, N.Y.	333	38.	Pittsburgh, Penna.	239
6.	Boston, Mass.	325	39.	Memphis, Tenn.	238
7.	New York, N.Y.	317		Spokane, Wash.	238
8.	Honolulu, Hawaii	312	41.	Birmingham, Ala.	233
9.	Reno, Nevada	306		Richmond, Va.	233
10.	Camden, N.J.	304	43.	Helena, Mont.	232
11.	Manchester, N.H.	290	44.	Casper, Wyo.	231
12.	Philadelphia, Penna.	288		Kansas City, Kansas	231
13.	San Juan, P.R.	286	46.	Seattle, Wash.	229
14.	Detroit, Mich.	284	47.	Phoenix, Arizona	228
15.	Coral Gables, Fla.	283	48.	Fargo, N.D.	227
16.	Baltimore, Md.	280		Jackson, Miss.	227
17.	Wilmington, Del.	277		Omaha, Neb.	227
18.	Chicago, Ill	275	51.	Columbia, S.C.	225
	Des Moines, Iowa	275	52.	Springfield, Ill.	224
20.	Minneapolis-St. Paul, Minn.	272	53.	Atlanta, Ga.	213
21.	Tampa, Florida	271		Nashville, Tenn.	213
22.	Los Angeles, Calif.	263	55.	Greensboro, N.C.	212
	Milwaukee, Wisc.	263		Little Rock, Ark.	212
	San Francisco, Calif.	263	57.	Houston, Texas	210
25.	Knoxville, Tenn.	258	58.	San Antonio, Texas	206
	Sioux Falls, Iowa	258	59.	Denver, Colo.	204
27.	Louisville, Ky.	256		Oklahoma City, Ok.	204
28.	Columbus, Ohio	253	61.	Tulsa, Ok.	203
	Grand Rapids, Mich.	253	62.	Lubbock, Texas	201
	Indianapolis, Ind.	253		Salt Lake City, Utah	201
31.	Cleveland, Ohio	252	64.	New Orleans, La.	198
32.	Jacksonville, Fla.	250	65.	Dallas, Texas	194
33.	St. Louis, Mo.	249	66.	Fort Worth, Texas	190

NATIONAL AVERAGE FAIR MARKET RENT - $254

* See attached notes.

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TABLE II

METHODOLOGY, SOURCES AND EXPLANATORY NOTES

Methodology: These figures represent a simple, unweighted average of the Fair Market Rents for a two bedroom walkup newly constructed unit as published for all housing market areas included in the jurisdiction of individual HUD Area or Insuring Offices, as applicable. The sum of the dollar value of the Fair Market Rents of all reporting market areas within a given HUD Office was divided by the total number of reporting market areas to yield an average Fair Market Rent for that Office. The average Fair Market Rent for each Office was rounded to the nearest dollar. To obtain a national average Fair Market Rent for a two bedroom walkup newly constructed unit, the sum of the dollar value of the Fair Market Rents of all reporting market areas in the nation was divided by the total number of reporting market areas.

Source: Federal Register, Vol. 40, No. 62 - Monday, March 31, 1975, pp. 14502 - 14564, and Federal Register, Vol. 39, No. 245 - Thursday, December 19, 1974, p. 43948 and p. 43950.

Explanatory Notes:

- Fair Market Rents for the Philadelphia Area Office and certain market areas of the New York City Area Office are currently under reconsideration. For purposes of this analysis, the proposed Fair Market Rents for such market areas have been utilized, as cited above in Vol. 39 of the Federal Register.

- Fair Market Rents have not been published in either proposed or final form for two bedroom walkup newly constructed units in two market areas within the jurisdiction of the Phoenix Insuring Office and in one market area within the jurisdiction of the Honolulu Insuring Office.

TABLE III

SCHEDULE OF HIGH COST PERCENTAGES APPROVED FOR USE IN ESTABLISHING MAXIMUM HUD MULTIFAMILY MORTGAGE LIMITS FOR BASE CITIES BY RANK ORDER*

RANK ORDER	BASE CITY	HIGH COST PERCENTAGE	RANK ORDER	BASE CITY	HIGH COST PERCENTAGE
1.	Manhattan, N.Y.	199	38.	Portland, Oregon	121
2.	WASHINGTON, D.C.	164	39.	Tampa, Fla.	120
3.	Portland, Maine	156	40.	Omaha, Neb.	119
4.	Columbus, Ohio	154		Topeka, Kansas	119
5.	Minneapolis, Minn.	152	42.	Albany, N.Y.	116
6.	Boston, Mass.	148		Dallas, Texas	116
7.	Cincinnati, Ohio	145		Reno, Nevada	116
8.	Milwaukee, Wisc.	142	45.	Burlington, Vermont	114
9.	Newark, N.J.	140		Kansas City, Mo.	114
10.	Buffalo, N.Y.	139		New Orleans, La.	114
	Cleveland, Ohio	139	48.	Denver, Colorado	113
12.	Chicago, Ill.	138		Manchester, N.H.	113
13.	Charleston, W.Va.	136	50.	Charlotte, N.C.	112
	Detroit, Mich.	136	51.	San Juan, P.R.	111
	Wilmington, Del.	136	52.	Indianapolis, Ind.	110
16.	San Diego, Calif.	134	53.	Jacksonville, Fla.	109
17.	Springfield, Ill.	133		Knoxville, Tenn.	109
18.	Grand Rapids, Mich.	131		Little Rock, Ark.	109
	Great Falls, Montana	131		Phoenix, Arizona	109
20.	Sacramento, Calif.	130	57.	Ogden, Utah	108
	Sioux Falls, S.D.	130	58.	Albuquerque, N.M.	107
22.	Providence, R.I.	129		Jackson, Miss.	107
23.	Fargo, N.D.	128		Nashville, Tenn.	107
	St. Louis, Mo.	128	61.	Columbia, S.C.	106
25.	Des Moines, Iowa	126	62.	Atlanta, Ga.	104
	Miami, Fla.	126	63.	Camden, N.J.	103
27.	Baltimore, Md.	125	64.	Birmingham, Ala.	102
	Spokane, Wash.	125		Houston, Texas	102
29.	Hartford, Conn.	124		Memphis, Tenn.	102
	Richmond, Va.	124		San Antonio, Texas	102
	San Jose, Calif.	124	68.	Oklahoma City, Ok.	101
32.	Philadelphia, Penna.	123	69.	Shreveport, La.	100
33.	Casper, Wyoming	122	70.	Fort Worth, Texas	99
	Los Angeles, Calif.	122	71.	Tulsa, Ok.	97
	Louisville, Ky.	122	72.	Boise, Id.	96
	Pittsburgh, Penna.	122	73.	Lubbock, Texas	94
	Seattle, Wash.	122			

* See attached notes

TABLE III

Methodology, Sources and Explanatory Notes

Methodology: The complete schedule of high cost percentages approved for use in establishing maximum HUD multifamily mortgage limits for base cities was placed in decending rank order utilizing the data source cited below.

Source: HUD Handbook 4445.1 Underwriting - Technical Direction for Project Mortgage Insurance; Transmittal No. 3 dated Oct. 9, 1974, Ch. 3, "Increased Mortgage Limits as Required by Local Cost Levels," as revised through March, 1975.

Explanatory Notes: "Special Limits," based upon Section 214, and not specifically noted in the above cited Transmittal, have been established for Honolulu, Hawaii, and Anchorage, Alaska. Therefore, these base cities are not included in this chart.

HON. GEORGE E. BROWN, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. BOLAND. We are delighted to have with us our colleague from the State of California, Mr. George E. Brown, who appears here in behalf of the appropriations for the Environmental Protection Agency.

We are glad to have you.

Mr. BROWN. Thank you, Mr. Chairman.

I appreciate the opportunity to make a brief presentation this morning.

I have a statement which you have before you. I would like to just read it over, it is rather brief, and if there are any questions I would be glad to expand on it.

Mr. Chairman, and members of the subcommittee, I appear before you today in two roles. One role is as chairman of the Environment and the Atmosphere Subcommittee of the Committee on Science and Technology, and the other role is as a Member of Congress who is personally interested in the success of our environmental protection programs. I will attempt, in these brief remarks, to separate these two roles.

Chairman Olin E. Teague introduced, and my subcommittee has completed action on H.R. 2932, a bill to authorize the research and development programs of the Environmental Protection Agency. That bill will be the subject of a full Science and Technology Committee markup just 1 hour from now. It would therefore be presumptuous of me to report the actions of the full committee at this time, but I would ask this subcommittee's permission to submit for your review and consideration the actions of the full committee, which should be available within a few hours.

The Environment and the Atmosphere Subcommittee went through only one of the functional categories of the Environmental Protection Agency; the research and development category which is within the jurisdiction of our full committee under the revised jurisdictional rules.

The subcommittee considered not only the administration's budget submission, but also the adequacy of EPA's R. & D. effort as viewed by independent sources, and as integrated with other Federal agency efforts in solving key environmental problems. Using all of these inputs, we decided upon a number of specific authorization increases.

Our recommended increases were carefully chosen, and aimed at specific areas of research and development that we found to be in need of additional funding. Our increases were made in the categories established by the EPA in their budget document, and added to the authorization sections of the enacting legislation. In the air research and development program the Environment and the Atmosphere Subcommittee voted to add $8 million to the administration's request for research on stationary source control technology for nonenergy pollutants.

I might say energy-related R. & D. is included in a separate budget item which we did not touch, that is, we did not increase, we accepted

the administration's figures. This would include work on emissions from automotive catalytic converters, which has become a rather high priority item just within the last few months.

In addition, $2 million was added to Air Research and Development for EPA to conduct research on the depletion of ozone from the upper atmosphere.

Again, another critical problem which has been the subject of several bills introduced in the House and in the Senate and which are before several committees of the House.

Under Water Quality Research and Development the subcommittee voted to add $2 million on the ecological effects of ocean dumping, $10 million for research relating to cost reductions in the construction and operation of municipal sewage treatment plants, and $1 million specifically for the improvement of technology transfer to State and municipal authorities.

The urgency of these additions was due to the court-ordered release of very large amounts of construction funding to which this R. & D. item is closely related.

Finally, the subcommittee voted to increase funding in the Solid Waste Research and Development area by $3.5 million in order to study soils for the facilitation of treatment of solid wastes, to study liners for disposal sites to reduce transfer of lechate, to study treatment technology at disposal sites and other such research related to the lechate problem.

The subcommittee considered several other areas, and decided not to recommend authorization increases. This did not mean that we were satisfied with EPA's research and development program in these areas, but it did mean that the subcommittee preferred to be cautious at this time, and wait until it had an opportunity to examine the EPA's programs in greater depth before recommending any further action. None of the recommended increases, which totalled $26.5 million out of a total budget request of $265 million for EPA's R. & D. programs, only were made easily or without testimony from the EPA that they were able to effectively use this money.

There were other areas that came to the attention of my subcommittee, but in fairness to all involved, I believe I should identify the remainder of my remarks as personal, and not necessarily representing the views of the Science and Technology Committee. I personally believe that the EPA has been less than vigorous in seeking an adequate budget from the Office of Management and the Budget, and the OMB budget is one that is harmful to our environmental programs in a variety of areas, besides that of research and development. One problem that has consistently been brought to my attention is the limitation on personnel that the OMB has imposed on the EPA. The EPA has more duties thrust upon it every year by the Congress, as indicated in the testimony by Administrator Russell Train to this subcommittee last week, but its personnel slots have not been allowed to rise accordingly. The Office of Research and Development has been particularly hard hit by these personnel limitations, which has driven away some of their better researchers, but they are not alone within the EPA. I believe this problem has been brought to your attention, as it has been brought to the authorizing committees, and I would hope that it could be addressed in your committee report.

One final area that I wish to address is the Federal air and water State and local grants program, which is used to help localities implement the air and water pollution control programs. As Administrator Train stated in his May 6 testimony before you, the air program grants budget was reduced by $7.5 million in fiscal year 1976. The appropriations for fiscal year 1975 was $55.293 million, and it was $50 million in fiscal year 1974. A constant level program, considering inflation, should be around $62 million in fiscal year 1976, instead of the request for $47.768 million. While I could argue for this $14 million increase based upon the demonstrated usefulness of the grants program alone, I would prefer that this subcommittee consider adding funds to the air grants program for the specific areas of air pollution monitoring, surveillance, modeling, and predicting capabilities. These areas of the State air pollution control plans have suffered the most from fiscal constraints. They also represent areas that are critical to the successful implementation and evaluation of the Clean Air Act. The current regulations for air pollution monitoring networks are considered inadequate by the EPA, and are currently being rewritten. Nationwide, the air monitoring program alone cost $36 million in 1974. The revised regulations, which will be implemented this fall, will cost the State and local control agencies an additional $10 million per year. If air pollution modeling and prediction capabilities are added just to the most polluted regions of the country, which includes my own district, it will cost another $10 million per year. Therefore, it will cost an additional $20 million per year for local enforcement agencies to develop the necessary information systems to effectively carry out the requirements of the Clean Air Act.

A similar case can be made for the water grants program, which was also cut in this year's budget request.

Mr. Chairman, I would like to conclude my statement by saying that I hope the subcommittee will consider not only adding the funds identified in this statement, but also add language to your committee report which would make the intent of these increases clear to the administration. I believe I have made only modest recommendations, as is demanded by our current fiscal constraints. I also believe these modest increases are necessary at this time, if we are to maintain the progress we have made in the environmental protection field.

Thank you very much.

Mr. BOLAND. Thank you very much, Congressman Brown.

The committee recognizes the problems that you have detailed here and the desire of the Science and Technology Committee to increase research and development in specific areas. I think we would have a problem with the ozone recommendation because that matter is spread, as you know, over a number of agencies, National Science Foundation, NASA, Consumer Products Safety Commission, and the Environmental Protection Agency.

One of the problems, as you know, is that this committee is concerned about duplication and the spreading of research programs over a number of agencies where they could be pulled together in one. This may be the one area where it ought to be pulled together. I do not know for sure.

Mr. BROWN. Could I comment on this?

Mr. BOLAND. Sure.

Mr. BROWN. I recognize it is a matter which is spread out in several agencies. The Senate Science Committee, the corresponding committee on the Senate side, has already added a new section to the Senate version of the NASA authorization bill providing for this ozone study. That will be in conference with the House version which did not contain similar language probably within the next week or so.

The Commerce Committee has, in marking up the Clean Air Act, already put in language with regard to the ozone study. We feel that an integrated program is vitally necessary and that it will include a component from NASA, it will include a component from EPA, it may include components from other agencies.

The essential thing, as you pointed out, is to make sure they are fully coordinated into a program that will meet the need. We will try to help you do that.

Mr. BOLAND. We are grateful for your recommendations. As you have indicated and as Mr. Train indicated when he was here—and this has been the case with many other agencies that this committee has looked at over the years, particularly the regulatory agencies—we have piled additional responsibilities upon them and have never given them the personnel to implement them. There is no sense in giving them the authority unless you give them the personnel to implement them.

We appreciate your appearance here this morning and we will certainly look at the areas that you have recommended. I am sure there can be a general agreement on some of the matters that you have recommended increases on.

Mr. BROWN. Thank you very much.

Mr. BOLAND. Thank you.

HOUSING ASSISTANCE COUNCIL

WITNESS

HON. JOHN BRECKINRIDGE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF KENTUCKY

Mr. BOLAND. We will turn to our colleague from the State of Kentucky, Congressman John Breckinridge. We are delighted to have you with us. We understand you are appearing here in behalf of the HUD budget, specifically with reference to the Housing Assistance Council. We would be very pleased to hear you.

Mr. BRECKINRIDGE. Thank you very much, Mr. Chairman.

Let me commence with an apology. I got to the office and was advised I had five 10 o'clock appointments. My copies which I would have provided are not here yet.

Mr. BOLAND. That is fine; you are just as impressive without copies.

Mr. BRECKINRIDGE. They are on their way.

Mr. BOLAND. That is all right.

Mr. BRECKINRIDGE. Mr. Chairman, members of the committee, I would like to bring to your attention a problem which underscores the serious nature of the housing crisis in rural America. I refer to the refusal of the Department of Housing and Urban Development to fund an organization known as the Housing Assistance Council (HAC).

The excellent performance of the Housing Assistance Council has been documented by an independent evaluation commissioned by HUD and conducted by Haner, Siler, George—a well-known consulting firm—as recently as September of last year. The report of the firm, dated September 1974, cited the Council as the only mechanism presently available to meet the need for firsthand information on the effectiveness of all kinds of rural housing assistance programs. The report found that the Housing Assistance Council "has left an indelible mark in housing circles at the Federal, State, and local levels through a combination of a highly dedicated staff and a firm understanding of the low-income rural housing need." The report further stated that the continued existence of the Housing Assistance Council is "essential if the low-income families and the individuals in the rural areas of the Nation are expected to be served fairly and proportionally as the flow of housing assistance is directed to the housing need in the Nation."

If HUD should abandon the Housing Assistance Council, it will have no comparable source of rural housing expertise, a serious deficiency in view of its responsibilities to housing development in all areas of our country.

The responsibility for various rural programs, including the research and demonstration projects undertaken by the Housing Assistance Council, was transferred by Presidential order from the Office of Economic Opportunity to the Department of Housing and Urban Development in 1973. Since then, HUD, through its Office of Policy Development and Research, has administered the programs transferred to it. However, HUD has informed the Housing Assistance Council that it will not grant it funds when the present OEO funds expire at the end of 1975.

In a letter to the Housing Assistance Council, the head of HUD's Office of Policy Development and Research declared that HUD has no statutory authority to fund the Council. This conclusion to me is astonishing, especially in view of title V of the Housing and Development Act of 1970 which specifically authorizes HUD to undertake research and demonstration programs.

By this statute, Congress sought to provide for broad administrative flexibility in order to allow for innovative research projects. Only with such flexibility can HUD stimulate a better focusing of all available local, State, private, and Federal resources upon the goal of safe and decent housing for low-income persons in rural areas. Thus, a narrow construction of HUD's statutory authority is contrary to the responsibilities given it by Congress.

The research efforts of the Housing Assistance Council are not only consistent with the objectives of HUD, but necessary to a complete and responsible effort by HUD to carry out those objectives. It is well known that the traditional governmental methods have largely failed to improve the condition of rural housing in America. It would be highly prejudicial to HUD's statutory commitments and to our national commitments to allow the elimination of the many-faceted research and demonstration activities of the Housing Assistance Council.

Equally pertinent to HUD's authority to fund the Housing Assistance Council is section 232 of the Economic Opportunity Act of 1964.

This is the section under which the Housing Assistance Council has been funded by grants since 1971 by OEO. Since 1973, HUD has been administering the OEO grants to the Council within its Office of Policy Development and Research. The transfer to HUD of OEO's "powers, authorities and functions" under section 232 was a valid exercise of the delegation authority contained in section 602(d) of the same act. Under section 232, the Director of OEO—and now the Secretary of HUD—is required to provide assistance to rural areas by taking steps to establish a program of research and pilot project activities specifically focused upon the problems of rural poverty.

The legislative history of section 232, and related provisions of the Economic Opportunity Act of 1964, reveal a broad and clear congressional intent to promote significant efforts toward the solution of the problems of rural poverty, including housing. In light of the language in section 232, and the legislative history of that section, it is clear to me that the programs of section 232 must not be frustrated by an agency to which they are delegated.

I cite with particular emphasis an excerpt from the report of the Senate Labor and Public Welfare Committee which accompanied S. 3016, the Economic Opportunity Amendments of 1969. The report discussed the question of delegation of OEO programs to other agencies, and stated in part:

> The delegation of an OEO operated program to another Federal agency inevitably causes concern among supporters of the program. Fears are aroused that the spirit of the program may be lost in the process, particularly the special sensitivity to the needs of the poor which has been emphasized in the OEO programs.

The committee report concluded that the Congress must make certain that the public investment in such programs is preserved, and that they not be allowed to be "swallowed up" by agencies which may be insensitive to the goals of the delegated program.

We are here faced with just such a situation here. HUD, as a matter of law, cannot "swallow up" the rural housing programs delegated to it under section 232, yet that is precisely what it is doing.

HUD is not substituting another research group for the Housing Assistance Council; rather, it is eliminating the only effective rural research organization of its type in the country. This, in spite of the superb evaluation from the consulting firm commissioned by HUD at considerable expense; this, despite the increased responsibility placed on HUD, at some considerable expense to the taxpayer by Congress, to aid rural housing by increased assistance under the Community Development Act of 1974.

The denial of funds to the Housing Assistance Council by HUD simply makes no sense. There is no justification for HUD's action in this regard; indeed, HUD has shown a serious lack of responsiveness to the rural housing situation in general and to the important work of the Housing Assistance Council in particular.

The needs of rural housing are vast. There are approximately 20 million households situated in nonmetropolitan areas. Of these, almost 3 million are in dwellings which lack basic sanitary facilities; and of those in such substandard housing, 62 percent have incomes of less than $4,000 at a time when the poverty level figures for a family of 4 has been announced as $5,050.

Nonetheless, HUD has done relatively little about the rural housing situation over the years. Few of HUD's programs—all of which are theoretically open to the entire country—effectively help the rural poor. In fiscal year 1973, as reported in the publication, Rural Development—Fifth Annual Report of the President to the Congress on Government Service in Rural America, HUD distributed grants totaling almost $600 million in its low-rent public housing programs. Only 0.4 percent of this amount or $2,400,000 went to nonmetropolitan areas. HUD's record in the same year in its mortgage insurance program for low to moderate-income housing at market interest rates was little better. Of the $750 million which were distributed to nonmetropolitan areas for this program, less than $75 million, 9.9 percent went to nonurban and thinly populated areas.

Recently HUD has been given more, not less, responsibility to develop and assist rural housing. Last year, the Housing and Community Development Act of 1974 required HUD to allocate a specificed percentage of funds within its housing assistance program to nonmetropolitan areas. This is not a mere repeat of HUD's statutory duties to housing in general, but rather a congressional mandate to direct a specified portion of its resources to one segment of the country—nonmetropolitan areas, in recognition of the dereliction of its duty in this area. Because of these new provisions, HUD will have even greater need to the Housing Assistance Council's expertise in order to administer effectively the array of new and old low-income housing assistance programs in rural areas.

The Housing Assistance Council is a nonprofit corporation founded to help provide decent housing in suitable environments for the rural poor; to this end the Council is involved in numerous research and demonstration projects on Federal, State and local levels. The Council has its headquarters in the District of Columbia and regional offices in Atlanta, Ga., and Albuquerque, N. Mex. Since its inception in 1971, the Council has been funded by grants, totaling some $6 million, from the Office of Economic Opportunity.

The Housing Assistance Council conducts research and analytical studies, both in-house and by contract to other agencies, in all areas of housing and community development, including housing safety, housing management and government housing operations. The Council publishes detailed collections of housing statistics on State and regional levels. It also publishes evaluations of Federal subsidized housing programs, and of legislation, both pending and enacted, which affects rural housing and community development opportunities. The reports and studies which emerge from the Technical Services Division of the Housing Assistance Council have made the Council a primary source of technical information on rural housing programs throughout this country. In addition to its published studies, the Council responds to a wide range of field questions on the costs, equity and efficiency of housing production, management and consumption.

On the demonstration side of its activities, the Housing Assistance Council works toward the development of an effective rural housing delivery system through a combination of technical assistance, training and information dissemination programs. One such demonstration project involves the use of regional housing authorities to facilitate the delivery of housing to rural areas. Two of the Council's research

studies have documented the inadequate funding and poor technical staffing of small local housing authorities which have resulted in ineffective housing service to dispersed populations. The Housing Assistance Council's solution has been to consolidate the local housing authorities by region and to provide administrative funding and technical assistance to the consolidated housing authority. For example, regional housing authorities were established in the area around Okjee, Minn., Fond du Lac, Wis., and Escambia, Mich. This has facilitated the hiring of full-time professional staffs and has increased the consistency of public housing availability in rural areas. As a result, management and accountability problems in the sponsoring agengies have been reduced.

The Housing Assistance Council has furthered its demonstration goals by providing interest-free loans to rural housing organizations seeking to develop housing for low-income people. Small rural nonprofit housing organizations are often unable to obtain construction financing, or else financing is obtainable only at high interest rates presently beyond the reach of the poor. The Housing Assistance Council is demonstrating the utility of a "centralized pool of resources" to help such small housing groups. The loans from this centralized pool have aided the production of over 3,000 housing units under local self-help projects. As earlier loans are repayed, they are recycled into new loans for other rural housing organizations. As a result, the Housing Assistance Council's commitments now total $4.7 million with more than $3.5 million dispersed out of its original $3 million revolving loan fund. To date, there is some $150,000 in the losses column fund of which some $75,000 is anticipated due to public housing which had been affected by the 1973 moratorium on public housing spending. Similar revolving fund arrangements are now being developed for State housing finance agencies as well.

The Housing Assistance Council has made obviously substantial efforts to direct the national attention to rural housing problems, especially the desperate housing conditions of the rural elderly. More than 20 percent of these houses are substandard. Moreover, 61 percent of rural elderly have an income below $2,000. The Council has demonstrated these rural housing conditions in its testimony during hearings before Congress, and in a variety of publications. Indeed, several of the Council's recommendations were included in the Housing and Community Development Act of 1974 (par ex, to allow public bodies to obtain Farmers Home Administration aid when providing housing for the elderly; provide a supplemental assistance program for rental units to serve lower income groups; provide technical assistance funds for nonprofit and public bodies).

Speaking for my own State, HAC has committed loans to four different groups in Appalachian Kentucky, totaling almost $350,000. The four groups are Eastern Kentucky Housing Development Corp. (HDC) in Whitesburg, Letcher County; David Community Development Corp. in David, Floyd County; Kentucky Mountain HDC in Manchester, Clay County; and Greater Cumberland Corp. in Cumberland, Harlan County.

It is now this committee's prerogative to take action to insure that these significant and innovative research programs and related ac-

tivities are both continued and administered by HUD, as provided by Congress and the delegation order of 1973.

I ask that within the appropriations for HUD the necessary funds be marked specifically for the Housing Assistance Council and put beyond the sole discretion of the Administrator. In this manner, the Council will be assured in a none too friendly setting of funds to continue its rural housing research; the Federal Government will be assured of the services of an organization with proven expertise and first-hand experience in directing our country's resources—both human and financial—toward a more effective system of housing development for the rural poor; and our citizenry will be finally assured of the constancy of congressional determination to resolve their problems.

I thank the chairman and the members of the committee very much for their patience.

Mr. BOLAND. Thank you very much, Congressman Breckinridge, for a very detailed statement. Thank you.

Mr. BRECKINRIDGE. Thank you.

ENVIRONMENTAL PROTECTION AGENCY

WITNESS

HON. DONALD M. FRASER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. BOLAND. We now turn to our colleague from the State of Minnesota, the Honorable Donald M. Fraser, who appears, as I understand it, with reference to the Environmental Protection Agency budget.

Mr. FRASER. Right, Mr. Chairman.

Mr. SHIPLEY. We welcome you here this morning, Mr. Fraser, and we will be glad to have your statement at this time.

Mr. FRASER. Perhaps I could put my formal statement into the record and I will just summarize my remarks, if I may.

Mr. BOLAND. All right. We would appreciate that very much.

[The statement follows:]

Mr. Chairman, I appreciate the opportunity to express my support for adequate appropriations for section 314 of the Federal Water Pollution Control Act Amendments of 1972. We who fought for inclusion of this clean lakes section hoped that a national effort to control pollution of the Nation's freshwater lakes would at last begin. That hope has yet to be fulfilled.

In passing this section, Congress recognized that the very attractiveness and recreational value of community lakes has caused serious problems for their continued existence. Development near lake shores has accelerated the flow of nutrients from sewage and urban runoff, and the eutrophication, or natural aging, of lakes has consequently been accelerated. As this process continues, lakes once clean become hopelessly and irrevocably clogged by sludge and debris, and any recreational value they might have had may be lost. The economic lifeblood of many communities may literally be choked off.

Passage of section 314 represented national recognition that urgent action was necessary to save our country's freshwater lakes. While $300 million was initially authorized over a 3-year period to carry out a national lake restoration program, not one penny has yet been spent on any American lake. Some $4 million has finally been made available for certain R. & D. projects for fiscal 1976, but this amount will fund only about a dozen projects and is woefully inadequate to meet our country's demonstrated needs.

The States' readiness and ability to make use of Federal funds has been well documented. Many have conducted extensive surveys of their needs, made cost estimates of various rehabilitation programs, and undertaken projects which are within their limited fiscal capabilities.

My own State of Minnesota has carried out a "Clean Lakes Inventory" of over 6,000 lakes. It had earlier identified more than 100 problem lakes for the Environmental Protection Agency—and made recommendations for rehabilitation techniques in each case. We have adopted land-use programs to protect the future environmental health of our lakes.

But most States cannot begin to act on their known needs—and others cannot even begin to collect the necessary data—until there is a clear signal from the Federal Government that adequate funds will be made available.

A veritable mountain of water-quality data has been collected by the Environmental Protection Agency and other governmental units. The "National Eutrophication Survey," the most comprehensive undertaking of its kind, includes data on 792 lakes from Maine to California. Preliminary results, based on a 10-State sampling, revealed that 13 of 242 survey lakes were oligotrophic (very pure), 25 were mesotrophic (good condition), 15 were mesoeutrophic (starting to go bad), 139 were eutrophic (bad condition), and 50 were hypereutrophic (going dead). Thus, almost 80 percent of the lakes included in this survey were found to be in bad condition or actually near death!

We now know that a great percentage of our Nation's 100,000 small and medium-sized lakes are dying. Many of these lakes have been identified; the restorative techniques, in many cases, are known. States and localities are ready to act. All that is immediately needed is money.

My own district, the city of Minneapolis, offers a good exmaple of the need for action, the demonstrated commitment of the local citizens to an effective clean lakes program, and the prospects for success once we make a firm national commitment to clean up our lakes.

The 22 lakes of Minneapolis are essential to the unique character, the lifestyle, and the economy of the city. More than 2 million people in the metropolitan area can take advantage of the recreational activities, the fishing, the excitment, and the beauty offered by Lakes Caihoun and Harriet, Brownie and Cedar, Isles and Powderhorn. Tourists have always been drawn to the scenic spectacle.

While Minneapolis can boast of lakes unpolluted either by toxic industrial wastes or human sewage, urbanization of areas around the lakes has caused deterioration of once pure waters. This is especially true where storm and sanitary sewage systems have been separated and storm water runoff—with its great phosphorous concentrations—has been diverted to the lakes without treatment. Almost all of the city's lakes can be described as eutrophic—a condition characterized by an overabundance of algae, a major decrease in water transparency, a lack of oxygen in deep levels, and an overall reduction in esthetic quality.

Minneapolis has acted to the extent of its fiscal capacity to halt the downhill trend in the quality of its natural resources. Several years ago, the city commissioned a massive and thorough study of its freshwater lakes. Based on this report, it has begun to implement various programs to restore the lakes to the sparkling condition remembered by many local citizens.

Lake pollution-control projects envisioned for 1975 include erosion control, storm-drain consolidations, weed harvesting, limnological and hydrological control programs, fish management, and monitoring. Even with limited and modest aims, this program is estimated to cost $277,000.

Minneapolis cannot hope to undertake further cleanup efforts without section 314 funds. A comprehensive vacuum-cleaning program of watershed areas to reduce the nutrients running into the lakes would cost up to $200,000 per year. Estimates for diversion systems to bring storm waters into the sanitary sewers range upward from $5 million. Existing biomanipulation programs—such as fish management—could be expanded up to $1 million with direct cost-ratio benefits.

Minneapolis is not only ready to go with proven programs, but is prepared to conduct major experiments on new restorative techniques. For example, biological management research programs—which would permit stormwater runoff to continue—have been mapped out for several lakes on which a vast amount of base data already exists. The costs for such a study is estimated to be from $50,000 to $100,000 per lake. With adequate funding, monitoring programs could be continued, pilot plants to remove nutrients could be constructed, and experimental aeration programs could be carried out. Though increased local taxes have been proposed for the watershed districts, most of these projects—especially the long-term ones—require a strong commitment of Federal resources.

We cannot allow Minneapolis lakes to die. They have become an integral part of the urban life of hundreds of thousands of residents. They help to draw

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tourists. And their death would involve not only major ecological costs, but major expenditures for alternative recreational areas.

Though it is the area I know best, Minneapolis is only one example of a widespread national problem. It is possible that eutrophication has already been noticed in Old Hickory Lake (Mr. Evins' district), in lakes Carlyle, Charleston, or Decatur (Mr. Shipley's district), in Dallas, Hamilton, Oliver, or Sylvan Lakes (Mr. Roush's district). Eutrophication is nonpartisan—and I hope it is not too far advanced in Naomi and Pocono Lakes (Mr. McDade's district) or in Lakes Seminole and Tarpon (Mr. Young's district).

We cannot stand idly by while the destruction of our freshwater lakes proceeds. We have the basic quantitative data and the necessary rehabilitation technology to begin effective cleanup measures.

And unless we act soon, it may be too late. Unlike rivers, freshwater lakes cannot adequately cleanse themselves. Each year we fail to move means more costly restorative steps in the future. And once our lakes die, they can never be brought to life again.

Mr. Chairman, $75 million (representing only a quarter of the total 3-year authorization) was appropriated under section 314 for fiscal 1975, only to be vetoed by former President Nixon. I would urge a similar amount to be appropriated annually over the next 3 years. We could then start, at long last, on the difficult and urgent task of cleaning up our Nation's lakes.

Thank you again, Mr. Chairman, for the opportunity to present my views before this committee.

Mr. FRASER. Mr. Chairman, I come here in support of an action which I hope this subcommittee would consider taking, of putting some money back in for the Clean Lakes Act, section 314 of the Federal Water Pollution Control Act Amendments of 1972.

There was $75 million authorized by this committee last year, but it ended up being vetoed. I come partly because of the concern that Minnesota has with its lakes. We have some 13,000 of them, although we only advertise 10,000.

We have an enormous investment in these lakes, both in terms of tourist industry and in terms of what the expectations of Minnesotans are.

But the problem is also a national one. EPA took a survey recently of about 700 or 800 lakes and preliminary results showed 80 percent of them to be either in very bad condition or near death.

The problem is that with the urbanization which has gone on in this country, a lot of lakes, around which the communities originally built, have gone bad. Urbanization increases runoffs of phosphates into the lakes. Storm sewer discharges, and all kinds of nutrient discharges which accelerate the dying process.

So we are here urging that the committee make another effort with the President to see if he would not be willing to proceed with section 314 of the act.

Now let me just say a word or two about our own city, because we are known as the City of Lakes.

We have 22 of them. They are a central feature of our central city and I want to underscore central city, because what has happened in Minneapolis is what has happened to a lot of central cities: Their tax base shrinks as their tax burden grows for police, health, fire and schools and so on. So our capacity as a community to deal with our dying lakes is severely limited.

We have had a survey recently in our city about this problem. We have some programs in mind, but our capacity to finance them is extremely limited.

Now if you should put some money in, and if the President should not veto it or try to rescind it, this would provide 70 percent matching money through a State program.

I would like to leave for the record, if I may, our last State document on funding needs submitted in accordance with the requirements of the Water Pollution Control Act.

[The material follows:]

MINNESOTA POLLUTION CONTROL AGENCY
Division of Water Quality
May, 1975

Memorandum on Funding Needs for Section
314 of Public Law 92-500

Introduction

The following memorandum is an updating of a document prepared by the Agency dated July, 1971 which dealt with funding needs anticipated for lake reclamation under the proposed Federal Clean Lakes Act. Since that date, the proposed Clean Lakes Act has been incorporated within the Federal Water Pollution Control Act Amendments of 1972 and designated as Section 314.

Section 314(a) of P.L. 92-500; 33 U.S.C. 1324 mandates that each State shall prepare or establish, and submit to the Administrator for his approval (1) an identification and classification according to eutrophic condition of all publicly owned freshwater lakes in such State; (2) procedures, processes and methods (including land use requirements), to control sources of pollution of such lakes; and (3) methods and procedures, in conjunction with appropriate Federal agencies, to restore the quality of such lakes.

Section 314 (b) of P.L. 92-500 specifies that the Administrator shall provide financial assistance to States in order to carry out methods and procedures approved by him to meet the objective of restoring the quality of publicly owned freshwater lakes.

The accompanying tables show the estimated funds which might be requested by Minnesota if authorized monies under 314(c)(2) were appropriated.

Table I is a summary of Tables II, III, and IV, and indicates an estimated total cost over the four-year period (1975-1978) of $44,694,000. It was assumed that approximately two-thirds of the total could be expended in the first year for lakeshore improvements and equipment purchase and installation such as for artificial aeration, with operation and maintenance making up most of the cost in the remaining years.

Table II shows the estimated annual costs for algae and weed control. The annual cost of $3,780,000 was estimated at the same level throughout the four-year period. These demands may increase substantially due to increasing development of lakes within Minnesota and subsequent eutrophication. It should also be noted that these measures are somewhat palliative or temporary in nature and, therefore, they may not be eligible for funding under current USEPA criteria.

Table III indicates a total figure of $17,898,000 for lakeshore improvements. This includes, for example, dredging, lake basin stabilization, greenbelt establishment and necessary maintenance. The $17,898,000 is the estimated cost for the first year, assuming this is when physical alterations are made. The remaining years are estimated to have maintenance costs of $498,000 per year. It was assumed that nearly all municipalities bordering on lakes and all state parks and forests with developed lakes would request funds, while requests from other sources would probably be small due to the cost of this type of improvement.

Table IV gives the estimated costs for artificial aeration. While this methodology is still in the experimental stage, some studies have indicated promising results. The cost of $7,968,000 for the first year includes the capital and installation costs. The remaining three years would have operation and maintenance costs of about $738,000 per year. However, continuing operation and maintenance costs for lake aeration are not considered to be eligible for funding under current USEPA criteria.

All of the figures are based on estimates of the demand which might occur if funds are made available. The current funding breakdown for lake restoration grants under Section 104(h) of P.L. 92-500 are on a 50% federal, 50% state basis. It may be assumed that with the program funding on a 50-50 split the demand will be substantially lower than if the funding is on a 75% federal, 15% state, 10% local basis. The demand, of course, depends on the state of the economy overall and at this time it is questionable whether there would be much local matching funds with a 50-50 split.

Joel G. Schilling, Head
Lake Survey Sub-Unit
Surface & Groundwaters Section
Division of Water Quality

Table I

Estimated Costs to Improve
the Physical Characteristics of
Minnesota Lakes

Year	Algae & Weed Control (1)	Lakeshore (2) Improvement	Artificial (3) Aeration	Total Cost
1975	$ 3,780,000	$17,898,000	$ 7,968,000	$29,646,000
1976	3,780,000	498,000	738,000	5,016,000
1977	3,780,000	498,000	738,000	5,016,000
1978	3,780,000	498,000	738,000	5,016,000
TOTAL	$15,120,000	$19,392,000	$10,182,000	$44,694,000

(1) Algae and weed control costs were assumed to be an annual, continuing cost See Table II for complete breakdown and assumptions used.

(2) It was assumed all physical improvements would be done in first year with maintenance costs only in remaining years. See Table III for complete breakdown and assumptions used.

(3) It was assumed purchase and installation costs would only occur in first year, with (operation and maintenance) costs only in remaining years. See Table IV for complete breakdown and assumptions used.

Estimated Annual Costs for Control of
Algae and Weeds in Minnesota Lakes

Region[1]	Total No.[2] Lakes >100 acres	Average Size (acres)	% of Lakes[3] Needing Control	Total No.[4] (Lakes) Needing Control	Total Acreage[5] Needing Control: Algal Control	Total Acreage[5] Needing Control: Weed Cutting	Cost of[6] Algal Control @ $2.50/acre	Cost of[7] Cutting & Removal @ $225/acre	Cost per[8] Region
Southern and Western	1,248	475	90	1,123	534,389	536	$1,336,000	$121,000	$1,457,000
Central	2,048	400	45	922	745,173	747	1,863,000	168,000	2,031,000
Northern	644	200	20	129	111,770	57	279,000	13,000	292,000
TOTAL	3,940	392*		2,174	1,391,000	1,340	$3,478,000	$302,000	$3,780,000

(1) The State was divided into three regions characterized by water-type and prevalent fish species:
Southern & Western - generally fertile and shallow supporting rough fish and panfish
Central - generally hardwater supporting bass, panfish, and walleyes
Northern - generally softwater supporting bass and walleyes

(2) 100 acres was chosen as the cutoff because smaller lakes are generally sparsely developed and generate relatively little public interest.

(3) Lake fertility decreases from southwest to northeast in Minnesota. The percentages employed about were estimated based on this fact.

(4) Corresponds to the percentage needing control multiplied by the total number of lakes. The word "lake" here, refers to a unit of lake area equal to the average-sized lake.

(5) Corresponds to the total acreage of the lakes in questions multiplied by the percentage needing control. Acreage needing algae control was computed to be 1,000 times the acreage needing weed cutting and removal based on present trends.

(6) $2.50 per acre was an updated figure supplied by the Minnesota Department of Natural Resources (DNR).

(7) $225 per acre was an estimate from "Survey of Lake Rehabilitation Techniques and Experiences", Wisconsin Department of Natural Resources, Technical Bulletin No. 75, 1974.

(8) Total Cost - Cost of algae control + cost of weed cutting and removal.

* Weighted average

Table III

Estimated Annual Costs for Lakeshore Improvements on Minnesota Lakes

ake Class(1)	Probable Number of Lakes Needing Improvement(2)	Length of Shoreline Improvement in feet Alterations(3)	Maintenance(4)	Costs(5) Alterations	Maintenance	Total
unicipal	320	320,000	404,000	$9,600,000	303,000	9,903,00(
tate Parks Forests	60	60,000	60,000	1,800,000	45,000	1,845,00(
thers	200	200,000	200,000	6,000,000	150,000	6,150,00(
OTALS	580	580,000	664,000	$17,400,000	498,000	17,898,00(

1) Lakes were classified into three groups as follows:
   - Municipal - Lakes bordered or enclosed by incorporated communities
   - State Parks & Forests - Lakes in State parks and lakes in state forests with campgrounds on shorelines
   - Others - Any lakes not included in other classifications

2) It was assumed all lakes in Municipal and State Parks and Forests would request improvements, while 200 in the "Others" class might request improvements.

3) Alterations include dredging, sanding, stabilizing, planting of trees, shrubs and grass. It was estimated that an average of 1,000 feet per lake would be altered. This is a one time cost of $30 per foot (cost supplied by City of Detroit Lakes updated to 1975 at 10% inflation per year).

4) Maintenance includes debris removal, cutting of grass, etc. It was assumed that all lakes would have maintenance on the 1,000 foot alteration except lakes entirely in city parks such as Minneapolis lakes which would have maintenance on entire shoreline. This is a continued annual cost at $0.75 per foot (costs supplied by City of Detroit Lakes and Minneapolis Park Board updated to 1975 at 10% inflation per year).

5) Costs have been updated using the 1971 figures plus 10% inflation per year.

Table IV

Estimated Costs for Artificial Aeration of Minnesota Lakes

Lake Class[1]	Estimated Number of Lakes[2]	Purchase and Installation Cost[3]	O & M Cost[3]	Total Cost
Municipal	160	$2,400,000	$275,520	$2,675,520
Winterkill	322	4,830,000	462,390	5,292,390
TOTALS	482	$7,230,000	$737,910	$7,967,910

(1) Municipal includes lakes bordered on or enclosed by incorporated communities. Winterkill lakes are those listed by Department of Natural Resources as lakes open to promiscuous fishing.

(2) It was assumed one-half of all municipal lakes could have low oxygen levels which could be improved by aeration and all winterkill lakes could be so improved.

(3) Costs supplied by MPCA using an average cost of $15,000 per lake for Purchase and Installation. O & M costs were estimated using 1971 figures plus 10% inflation per year.

Mr. FRASER. So we have these lakes. They are dying. Our capacity to deal with them is limited.

I have been very much involved with these lakes as I grew up. The fact is, lakes I once used to swim in now are in pretty bad condition. They are still swum in, but not by very many people, mostly by people who by reasons of economic limitations cannot go someplace else where they have real confidence in a fresh water body.

Mr. SHIPLEY. I can remember in my own county, I lived in the country, my grandfather used to go fishing and swimming in the creeks. Today you cannot eat the fish out of them. You most certainly would not want to swim in them.

Mr. FRASER. I know budgetary constraints are real, that you are going to have to face some choices, but in a sense this is a capital investment in restoring a very important asset in this country. It is going to have to be done someday, the longer we delay the more costly it is going to be.

At this time, a time of unemployment rates from 9 to 11 percent, this is a good time for capital investment in a very important American resource. It would help a lot of communities, particularly some central cities around the country which are having difficulty holding population. So I just hope the committee will do as it has in the past and view this program favorably.

Mr. BOLAND. Does Minnesota have as many lakes as Michigan?

Mr. FRASER. 13,000. We are No. 1.

Mr. BOLAND. There are some 2,500 in Maine.

There are a lot of lakes in one of the members of this committee's districts. He is terribly concerned about this matter because he shares the same concern about the lakes as you do, as we do, as a lot of Members in the Congress do. Our friend from Indiana is quite concerned over the drying up of the lakes. If the lake is gone, it is gone forever, it can never be restored. I kind of like that phrase.

Eddie, you probably have commended Don already.

Mr. ROUSH. I have not had the chance yet.

Mr. BOLAND. I think Administrator Train caught the impression that there is some feeling in this committee, spearheaded by Mr. Roush of Indiana, that we have some concern about this problem.

Mr. Roush?

Mr. ROUSH. Thank you.

I do want to commend my colleague for his statement. When I first joined the Appropriations Committee, I asked to be assigned to this particular subcommittee because EPA had just come into existence and I thought this subcommittee would have jurisdiction over EPA. So I asked to be assigned here. Instead, they gave it to the Agriculture Subcommittee.

But now, because of the great patience—and what have you—they have returned to the place they belong. They are under the jurisdiction of this subcommittee.

I did question them quite thoroughly when they were here about the lakes problem. They admitted they have no enthusiasm for the lakes problem. I think it is because there are only a few States that have the great number of lakes that we have.

I have approximately 500 in my congressional district, Indiana has many more than that, Maine has them, Minnesota, Michigan, Wis-

consin, but, taking the country as a whole, there are not that many fresh water lakes and usually you do not have a population center on a lake.

Now you have some exceptions. But usually you do not have. Because of the formula they have devised, it is impossible to give the lakes the attention and the money that they should have.

This is a serious problem. A stream does cleanse itself, a lake does not cleanse itself.

Mr. FRASER. Right, that is the difference.

Mr. ROUSH. It is a very real problem.

I want to assure my colleague that as far as I am concerned, I am going to continue to press to see to it that we get the assistance to help clean up these lakes that the circumstances demand. And I told them if I sat here another 10 years that they might as well be prepared to hear the same story year after year, because it is a serious problem.

I love my lakes. I live on a lake, I think people have not respected the lakes as they should. The population, the temporary population growth around the lakes is something that we have to contend with and it is a difficult problem for us.

I commend my colleague for his very fine statement and I would hope that he might help us command a great deal of support for this program.

Mr. TALCOTT. I think we all share your concern.

All of us are not as appreciative of the problems with the lakes as you and Mr. Roush are. You know, I used to think that all lakes had outlets as well as inlets. But I guess there may be some difference between a lake and a pothole.

Mr. FRASER. It depends on the shoreline.

Mr. TALCOTT. It is a pretty serious business we are in.

Mr. ROUSH. A lake is a living thing.

Mr. TALCOTT. But the people around it make it live.

I hope you take care of your lake and do not let it get in the condition that other people let their lakes get into, and I am sure you do take care of it.

Mr. FRASER. Let me emphasize our lakes are not polluted by industrial waste or sewage. We are very careful about that. But these are runoffs that come from phosphates on the lawns and storm sewer discharges that really cause an aging of the lakes.

If we could get some good programs going, I think we could help other communities learn in time how to preserve their lakes.

Mr. BOLAND. As you have indicated, it is a matter that is not going to be solved overnight, and it is going to require considerable funding.

You recognize the fact there are some budget restraints. However, if we do not get started now, I guess we probably never will get started. We do not expect to do the job overnight. It is a long-term proposition and we share your concern. We are very pleased to have you and thank you so much for coming.

Mr. FRASER. Thank you very much.

Mr. BAUCUS. I am curious, what is Minnesota doing generally? Maybe it is in your statement.

Mr. FRASER. Our city of Minneapolis, for example, has just finished a survey and have formulated a program estimated to cost around a quarter of a million dollars. They think this would begin to help the problem.

They are having trouble funding that. They regard this as the least program. It would just get a start on it.

Statewide, we have a survey which is really required from every State, which represents an evaluation of the condition of each of the lakes in the State, and what would be required.

They have formulated programs for algae weed control, lakeshore improvement, artificial aeration; they have all of this laid out as to what is required.

But again, it is a funding problem.

Mr. BAUCUS. Do you have a surplus or a deficit in Minnesota's budget? What is your financial condition?

Mr. FRASER. Our legislature is just winding up this week and I understand they are in a deadlock over the tax bill. But they began with a surplus because of inflation-feeding revenues.

We are on a biennial basis. Suddenly they are confronted with the need to catch up on salaries and school assistance, which is a big share of our State budget. So now they are back into very tight budgetary problems again.

Mr. ROUSH. Thank you very much.

NATIONAL SCIENCE FOUNDATION

STATEMENT OF REPRESENTATIVE TOM RAILSBACK OF ILLINOIS

Mr. BOLAND. Our distinguished colleague from Illinois, the Honorable Tom Railsback has submitted a statement regarding the National Science Foundation. We will place the statement in the record at this point.

[The statement follows:]

THE IMPORTANCE OF NSF'S EDUCATION PROGRAMS TO UNDERGRADUATE COLLEGE AND UNIVERSITY FACULTY

Mr. Chairman and members of the committee, I want to emphasize the continuing importance of the National Science Foundation (NSF) programs in education. This is the only agency having responsibility for the full range of education in science, from kindergarten through graduate training, as well as for postdoctoral and "continuing" forms of education. Its efforts are unique in addressing the entire spectrum of educational activity as students progress in their formal training from the most elementary to the most advanced levels. In serving this function the NSF has enlisted the cooperative participation both of school teachers and of university and college faculty. In doing this, it has torn down old barriers to communication between those who teach in the classroom and those who do research at the forefront of our quest for scientific understanding. It is clear from its outstanding record of achievement that the National Science Foundation has applied unusual skill and imagination in carrying out its congressional mandate in science education. I definitely feel that the Foundation should be encouraged to continue this valuable service at recent levels of funding.

The great need for science education in this country became apparent around 1956 with the discovery that the Soviet Union was far ahead of us in training people for the technological competition that is now so well established. In 1957 the U.S.S.R. launched its first Sputnik, much to our amazement and concern, as though to emphasize the immense capabilities of its technological community. Sputnik ended any shred of doubt about the necessity of our creating and maintaining the finest educational programs in science and the strongest scientific community in the world.

The NSF responded to this important challenge by instituting a broad program of modern textbook and curriculum development in the basic sciences. These soon began to replace obsolete instructional materials in classrooms. NSF

also created an imaginative program of inservice training and summer institutes to improve the skills of science teachers, primarily at the secondary school level. This program was later expanded to encompass elementary school teachers and faculty in those colleges where there is little, if any, scientific research. The primary focus in these early days was to improve the subject matter knowledge of those who taught science and to provide modern tools for instruction. Eminent research faculty at major universities were enlisted to write the new high school and college texts incorporating up-to-date research concepts and discoveries in science. Meanwhile, teachers attended summer institutes that were generally held at local universities and colleges and conducted by university and college faculty from science departments, rather than from departments of education. Additional instruction was provided during the school year under local "in-service" programs.

In a very few years the National Science Foundation came to have a profound impact on precollege instruction in this country, for it created through these programs an avenue of communication between those who do science and those who teach it. Advanced research scientists came to take an increasingly active interest in the problems of elementary and secondary school science education. They began to seek contact with undergraduate college and university faculty because of their growing recognition of the importance of overcoming the special problems encountered in teaching at that level. Similarly, undergraduate college faculty began to work directly with elementary and secondary school teachers through the various institutes' programs.

As a result of these programs, the United States achieved a major improvement in its science instruction. With better textbooks, improved curriculums, and the up-to-date knowledge of its teachers, students of science began to get the kind of instruction that allowed them to begin to build a fund of knowledge about science from their earliest school years. Students in elementary school began to have a real grasp of what science is and how it is done. Recalling the state of affairs in the 1950's, there can be little doubt that the National Science Foundation has achieved a great deal in terms of the money it has spent. It would certainly be gratifying if all of our Federal programs showed similar success and effectiveness.

Around 1965 it began to be apparent that new demands were emerging for NSF's educational programs at the precollege and undergraduate levels. Though there continued to be a need for teacher retraining, a vital corps of well-trained teachers and college faculty had been established, and the time had come to move to a more sophisticated format. In response to the interests of teachers and school systems, the institutes' programs, which had formerly focused almost entirely on teaching science itself, began to deal with whole curriculums in science and with exciting new ways to get students involved in the learning process itself. Rather than merely studying a subject from a book, students began to be put in the position of experiencing events firsthand in the way that a research scientist does. New curriculums, prepared by commercial firms as well as under NSF sponsorship, began to feature actual classroom experiments and to make extensive use of movie films plus other visual aids to convey these new experiences. It then became necessary to help teachers to learn how to handle these new curriculums and methods. The summer institutes naturally became the vehicle for this teacher training, which schools of education were generally not able to provide at that point in time because the material demanded a considerable knowledge of science.

Today, in addition to their vital activities in teaching undergraduates, undergraduate college and university faculty are an essential element for the maintenance and continuing improvement of our science resources in precollege education. This is a crucial level of teaching, for this is where the groundwork is laid for more extensive study of science by some students. And for a great many others it may be their only exposure to skills that are increasingly essential in this technological world. It is clearly important to maintain these NSF programs which train precollege teachers through colleges and universities, just as it is important to maintain the skills and innovative activities of college faculty through NSF's programs directed at their particular needs.

I sincerely hope that NSF's recent deletion of the college science improvement program, the science faculty fellowships and the subject matter summer institutes is only a change of name and does not indicate the loss of the very important

objectives formerly addressed by these programs. College faculty serve an important role in their own realm of teaching, and they face especially difficult problems in maintaining their own competency in nonresearch surroundings. Their problems are now escalating with the increased interest in community and 2-year colleges. But in a real sense, college faculty are at the vital center of the science education process, teaching those who currently teach at precollege levels of education and preparing undergraduate students for careers of all sorts--including a few who will go on to become scientists. Their professional expertise, their creativity, and their commitment to both of these types of endeavors is vital to this country's interests.

I hope you will encourage NSF to continue its many programs involving college faculty. I also hope you will encourage NSF to strengthen those programs. Now that we have achieved the finest educational system in science in the world, it would be unthinkable to let it fall into disrepair. The colleges are clearly essential to maintaining this educational prowess, and they deserve the full attention indicated by their heavy responsibilities. Many colleges now face difficult financial problems and are ill prepared to suffer a hiatus in Federal support at this time. I hope you will not compound their difficulties by neglecting their need or by failing to recognize the national need for their important and continuing contributions.

VETERANS' ADMINISTRATION

STATEMENT OF REPRESENTATIVE JOHN PAUL HAMMERSCHMIDT OF ARKANSAS

Mr. BOLAND. At this point we will place in the record a statement from Congressman Hammerschmidt regarding the Veterans' Administration.

[The statement follows:]

Mr. Chairman, as the ranking minority member of the House Committee on Veterans' Affairs, it has come to my attention that the Department of Veterans Benefits in the Veterans' Administration intends to cut back 595 positions for the 1976 budget.

In my estimation, this cutback in staff does not appear to be practical, or possible, in view of the increasing number of trainees and new legislation authorizing vet-rep coverage to all institutions except correspondence schools.

Trainees under chapter 34 (Veterans Educational Assistance) total 2,695.000 in 1975, or an increase of 130,000 above what was projected. The latest estimates of chapter 34 trainees for 1976 is 2,775,000, which is approximately 200,000 above the estimate in the budget—this is based on the current trend.

In addition, the budget does not contain funds to increase the vet-reps to cover all institutions except correspondence schools.

Other workloads are also increasing. Public Law 93-508 requires that a justification be provided for approval of oll vocational training courses, that verifies at least one-half of all persons trained during the preceding 2-year period, at the institution for which the veteran has applied, and those that have been employed in the occupational category for which they were trained?

During the current fiscal year, overtime is being used at an excessive rate to just keep the present workload manageable and current. Overtime is not a sound way to approach the Veterans Administration workload problem.

Mr. Chairman, the Veterans' Administration, specifically the Department of Veterans Benefits, must increase its staff by 1,660 employees above that level currently reflected in the budget for fiscal year 1976. This action to increase staff will preclude a breakdown in service to our veterans during the coming fiscal year.

WITNESS

WILLIAM B. GARDINER, ASSISTANT NATIONAL DIRECTOR OF LEGISLATION, DISABLED AMERICAN VETERANS

Mr. BOLAND. The next witness will be Mr. William B. Gardiner, Assistant National Director of Legislation, Disabled American Veterans. We are delighted to have you with us. You have testified many times before, and we always appreciate hearing from you.

Mr. GARDINER. Thank you, Mr. Chairman.

Mr. Chairman and members of the subcommittee, on behalf of the Disabled American Veterans, I wish to express our sincere appreciation for this opportunity to present our views on the VA budget request for fiscal year 1976, and to thank the members of this distinguished committee for their generous approval of the $820,600,000 in additional and supplemental appropriations they so recently authorized for fiscal year 1975.

We come here today, Mr. Chairman, not as knowledgeable experts in fiscal or budgetary matters, but as an organization which, for more than 50 years, has been vitally concerned with adequate funding for the VA programs that provide benefits and services for our country's 29 million veterans, the 65 million members of their families, and the nearly 4 million survivors of deceased veterans.

As the laws that the Congress has enacted to provide these benefits are administered by the Veterans' Administration, we are pleased that the 1976 budget request appears to be far more realistic than those of recent years, and we hope that the $16,424,264,000 appropriations request is the beginning of a new era of openness so far as the true financial needs of the Agency are concerned.

The net increase of $647.6 million over the combined amounts requested for fiscal year 1975 is made necessary by the effects of inflation on its various operations, and the increased funding will enable the VA to continue to provide:

Compensation payments for service-connected disabilities and death, totaling $4.6 billion to 2.6 million veterans and survivors of deceased veterans.

Non-service-connected pension payments of $2.7 billion to 2.2 million disabled veterans and survivors of deceased veterans who are in financial need.

Educational and training assistance to 2.6 million veterans and 80,000 eligible dependents of decreased or totally disabled veterans.

Housing credit assistance for guaranteed loans of over $10 billion to an additional 365,725 veterans.

Life insurance protection totaling more than $98 billion for 8,213,000 veterans and active duty service men and women.

Hospital, nursing home, or domiciliary care for 1,246,531 patients.

Outpatient medical care totaling 14,743,000 visits.

Hospital and medical treatment for the dependents of veterans who are totally disabled or who have died of service-connected disabilities.

Burial benefits of $143 million, including the new plot allowance authorized by Public Law 93–43.

VA construction programs totaling $403.9 million.

While the 1976 budget request is gratifying and encouraging in many respects, we believe that arbitrary fiscal restraints are still being imposed by the Office of Management and Budget, and we wish to discuss briefly some of the deficiencies that we respectfully bring to your attention.

MEDICAL PROGRAMS

Because of its chartered purpose and the special constituency that we represent, the DAV has a deep and abiding interest in the VA hospital and medical programs. We were, therefore, deeply disturbed by the special survey on the quality of patient care in Veterans' Administration hospitals and clinics, conducted under the direction of the Chief Medical Director.

The Chase report represents, in our opinion, an intelligent, objective, and forthright analysis of the VA hospital and medical system. It expresses in clear and unmistakable terms how the system can and must be improved in order to meet the health needs of America's veterans.

Frankly, Mr. Chairman, the DAV was amazed by the extent of the criticism leveled at the VA by its own Chief Medical Director, and we view his report as a new and refreshing change from that which we have seen in connection with VA studies in the past.

The quality of care survey reveals that there are critical requirements in the areas of intensive care units, air conditioning, construction, maintenance, and repair of water and electrical systems. In short, the report reveals that the VA medical programs are in need of immediate and massive remedies.

It places great emphasis on the need for improved hospital staffing and recommends that top priority be given to increased remuneration for physicians, dentists and nurses; that incentive pay be provided, and that the present $36,000 annual salary restrictions for top level medical personnel be lifted.

In one of the most pertinent sections, the report states that:

> If improved remuneration is not forthcoming in the next few months, we are convinced that the VA's ability to recruit well-qualified physicians will be seriously impaired and there will be an acceleration of resignations and conversions to part-time employment for economic reasons.

The report also points out that if the current deficiencies are not quickly and effectively corrected the situation will deteriorate and irreparable harm to the system will result.

In view of these somber revelations, Mr. Chairman, the DAV is very favorably impressed with the positive aspects of the proposed medical budget. The appropriations request of $3.6 billion for fiscal year 1976 is an increase of $343.3 million over the anticipated level for 1975, and, if approved by the Congress, will permit the VA to implement approximately 80 percent of the improvements found to be necessary in the quality of care survey.

We are also grateful for the decided improvements that are proposed in the staff-to-patient ratio in VA medical facilities. We strongly regret, however, that the OMB refused to allow the additional 2,507 medical personnel that were found to be essential by the Chief Medical Director in order to provide 24-hour basic services at all VA hospitals, nursing homes, and outpatient clinics.

In this connection, Mr. Chairman, we wish to point out that legislation—H.R. 1545—is currently under active consideration by the House Committee on Veterans' Affairs, which, if enacted, would place the Department of Medicine and Surgery back on a competitive basis for the recruitment and retention of critically needed physicans and dentists.

Congressional hearings on the bill revealed that increasing numbers of VA doctors are resigning to accept higher paying positions or are opting for part-time positions so as to bolster their total income. It was made clear that under its present noncompetitive salary structure, the VA is unable to recruit replacements for those physicians who have resigned, or to retain on a full-time basis those doctors who have changed to part-time employment.

As this committee is aware, a highly trained, qualified professional medical staff is essential for the provision of quality health care for America's veterans, and it is expected that enactment of the pending legislation to bring the overall remuneration in line with those of other Federal services will require additional appropriations of approximately $50 million.

We, therefore, respectfully request the members of this committee, who have been more than generous with their time and their efforts to improve the VA medical programs, to authorize such appropriations as are necessary to fully carry out the staffing and salary recommendations of the Chase report.

DEPARTMENT OF VETERANS' BENEFITS

Except for medical servcies, this Department is responsible for providing the direct benefits authorized by law to veterans, their widows and dependents. Yet at a time when there has been a marked increase in new and reopened claims for compensation, pension and educational benefits, the proposed budget calls for a reduction of 595 employees.

This reduction is totally unrealistic in view of the present workloads and the new legislation still to be implemented. Due in part to the economic recession and the high rate of unemployment among the veteran population there has been a significant increase in all major programs in fiscal year 1975, and the 1976 budget request does not reflect present economic conditions or provide for full implementation of Public Law 93–508.

The new law, enacted in the last session of the 93d Congress, requires the Veterans' Administration to greatly expand its Outreach and Vetrep on Campus programs. It also provided a substantial increase in training allowances which, in turn, has increased veteran participation in the VA educational programs.

All of these new provisions, including an additional 9 months entitlement for undergraduate training, were enacted into law after

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the fiscal year 1976 budget request had already been prepared and before the VA was aware of the additional workloads that would be involved.

If the ever increasing activities at VA regional offices across the country are to be handled efficiently and without the frustrating delays that were encountered last year, this proposed reduction must not take place. Instead, an additional 1,000 employees should be hired to prevent diminution of the benefits and services to which our Nation's veterans are entitled under law.

It would be tragic indeed, Mr. Chairman, if the Veterans' Administration were to lose all of the Valuable gains it has made during the last quarter of 1974, and in light of all these factors, we respectfully request that the proposed reduction of 595 be restored, and an additional 1,000 employees be authorized by this committee in order to efficiently handle the increased workloads and provide for full implementation of Public Law 93–508.

COMPENSATION AND PENSION

The Disabled American Veterans was deeply disturbed to find no provision in the 1976 budget request for an urgently needed increase in compensation and DIC payments to the Nation's 2.2 million disabled veterans, and the 366,054 survivors of veterans who have died from service-connected disabilities.

As you know, it has been customary in the past for the Congress to review the VA disability compensation program on a biannual basis. Under normal conditions, when the rise in the cost of living occurs at a moderate and predictable pace, the biannual restoration of the purchasing power of the compensation dollar may have seemed appropriate.

These are not, however, normal economic times; and although the compensation payments were adjusted by Public Law 93–295 on May 1, 1974, the continuing inflationary spiral has nullified the generous increases that were authorized at that time. In fact, Mr. Chairman, it took only a few months of last year's double digit inflation to completely eliminate the gains that were made. Since May 1, 1974, when compensation rates were last adjusted, the Consumer Price Index has increased by approximately 10 percent, and it is safe to assume that it will exceed 14 percent before the end of the current year.

Most Americans have been hard hit by this constant erosion of their purchasing power, and this is specially true of the totally disabled veteran, who is unable to work and must depend on his compensation payments for the basic necessities of life. The Department of Labor reports that in 1974 a typical urban family of four required a before-tax income of at least $9,200 per year in order to live at an "austere" level.

This report is most distressing when one considers that a totally disabled veteran with a wife and two children is presently entitled to only $7,932 per year in disability compensation and dependency benefits.

Because of these financial hardships, the House and Senate Veterans' Committees are conducting hearings on legislation to provide a cost of living increase in the payments of disability compensation and

dependency and indemity compensation, to become effective on July 1, 1975.

In anticipation of the enactment of this urgently needed legislation, we respectfully suggest that the appropriations for compensation and pension be increased by at least 12 percent.

READJUSTMENT BENEFITS

To provide for the rapidly expanding workloads in readjustment and rehabilitation benefits for an estimated 2,689,000 veterans, their dependents and survivors, the Veterans' Administration is requesting a fiscal year 1976 appropriation of only $4.2 billion.

Furthermore, Mr. Chairman, the Administration proposes to save $600 million by requesting the Congress to repeal the 2-year extension of the delimiting period for readjustment assistance benefits provided by Public Law 93–337. As the members of this committee will recall, despite the objections of the administration, Congress unanimously enacted the legislation last July providing for an additional 2-year period within which to utilize educational assistance benefits. We therefore deem it highly unlikely that the proposed repeal will be accomplished.

More likely to be enacted by the Congress is legislation to remove the limitations on the additional 9 months of training provided by Public Law 93–508, and entitle all veterans who served on active duty after January 31, 1955, for 18 months or more, to 45 months of unrestricted educational assistance. It is therefore estimated that the appropriations request for readjustment benefits may be deficient by approximately $671 million, and we request the committee's consideration of increasing the appropriations by that amount.

In conclusion, Mr. Chairman, the Disabled American Veterans strongly supports full funding of the Veterans' Administration's $16.4 billion budget request with the additions recommended in this presentation, and I wish to express again our sincere appreciation for the thoughtful consideration that the members of this committee have always given to the needs of America's disabled veterans.

Mr. BOLAND. Thank you very much, Mr. Gardiner. I express the appreciation of the committee too for your comments with respect to what this committee has done in the field of funding of the Veterans' Administration.

Many of the matters that you refer to, compensation, pensions, readjustment benefits, these are matters which are uncontrollable and this committee has—as long as I have been sitting on it—always provided sufficient funds to meet the obligations which occur under those activities. Mostly we do it by supplementals.

You mentioned the Chase report in your statement. In the Second Supplemental, which is now pending, we did provide some $35 million for major and minor construction projects outlined by the Chase report, so we are actually getting started in that area.

We appreciate the attitude of the Disabled American Veterans and always benefit by the testimony of the organization. We recognize the fact that the DAV has contact offices close to these problems and consequently talks to thousands and thousands of veterans.

I am interested in the Disabled American Veterans' position on the Selective Service System. Can you give us a rundown on that?

Mr. GARDINER. Do you mean on repeal?

Mr. BOLAND. Yes.

Mr. GARDINER. We have no official position, Mr. Chairman. We have always supported Selective Service when the draft was active and it is my understanding that it is in a standby position right now.

Mr. BOLAND. Has the DAV taken a position on the standby system?

Mr. GARDINER. No; we have not.

Mr. BOLAND. I understand some of the other veterans organizations do have a position on it and I was just wondering what the DAV position was on the standby system. But you say the organization has not taken a position on it and apparently has not established any particular policy with reference to it?

Mr. GARDINER. No, sir. Under our constitution and bylaws, DAV legislative policy must be based on resolutions adopted by the most recent national convention. As no resolutions on this subject were approved by the 1974 convention, we have no official position on it.

Mr. BOLAND. Thank you very much, Mr. Gardiner. We have been delighted to have you with us. We appreciate, as always, your appearance and your comments.

Mr. GARDINER. Thank you so very much, Mr. Chairman.

VETERANS' ADMINISTRATION

WITNESS

DR. JOHN F. SHERMAN, VICE PRESIDENT, ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Mr. BOLAND. Dr. John J. Sherman, vice president of the Association of American Medical Colleges.

Dr. SHERMAN. Thank you, Mr. Chairman.

We have a prepared statement which can be submitted for the record. I thought to save your time I would summarize this.

[The statement follows:]

Mr. Chairman and members of the subcommittee, the Association of American Medical Colleges welcomes this opportunity to appear before the subcommittee during its consideration of the fiscal 1975 budget for the medical programs of the Veterans' Administration.

Now in its 99th year, the association represents the whole complex of persons and institutions charged with the undergraduate and graduate education of physicians. It serves as a national spokesman for all of the 114 operational U.S. medical schools and their students, 400 of the major teaching hospitals, and 58 learned academic societies whose members are engaged in medical education and research.

The asociation is anxious to comment on these appropriations requests because of the long and fruitful relationships that have developed between the Nation's medical schools and the Veterans' Administration. Since the end of World War II, U.S. medical schools have enjoyed mutually beneficial relations with Veterans' Administration hospitals. The quality of medicine practiced in the VA hospitals has been improved substantially. In addition, the quality of medical education has been enhanced, and the schools have been able to expand their activities and to increase significantly the number of physicians graduated. As of January 1975, 92 medical schools have affiliation agreements with 113 VA hospitals.

The association is particularly interested in those activities related to the affiliation program. Budget data for these activities follow:

BUDGET AUTHORITY

[In millions of dollars]

	Fiscal year—			Transition quarter: July 1–Sept. 30, 1976
	1974	1975	1976	
Medical care	2,859	3,325	3,668	950
Medical and prosthetic research	76	91	95	25
Assistance to health manpower institutions	25	10	30	8
Medical administration and miscellaneous operating expenses	34	38	39	10
Construction	111	303	404	32
Total	3,105	3,767	4,236	1,025

The budget data show increases in each of the activities, which the association applauds as recognition by the VA of the importance of these areas to the health of veterans as well as to the education and training of health manpower. The general increases mask straight-line budgets for some activities or omission of funds, in some cases. These activities include health manpower assistance, medical research, construction for research and education, and hospital staffing and graduate medical training. Further discussion of each of these activities follows.

HEALTH MANPOWER ASSISTANCE

Both budget authority and program levels are headed upward in this relatively new program of VA assistance for new State medical schools and for existing medical and other health personnel schools affiliated with VA facilities. These increases are achieved through higher funding for the program of aid to new schools, while funding for the other aid programs is reduced. As a result, the President's request for aid to new schools appears adequate, but his request for aid to affiliated schools will not permit any new commitments. This appears to be a continuation of a pattern that has occurred in prior fiscal years as well. In the present fiscal year, for example, funding for aid to affiliated schools is about $10 million short of the need, which means that the fiscal year will end with some 40 applications that have been approved and for which no funds are available. In fiscal 1976, the $19 million requested for aid to affiliated schools will be completely consumed by continuations. Thus no funds will be available either for the unfunded fiscal 1975 applications or for the estimated 100 applications which will receive approval during fiscal 1976.

Association recommendations.—The association recommends appropriations of $65 million under section 5082 of title 38 for aid to affiliated medical schools and other health personnel institutions. This represents a $35 million increase over the President's request, which meets the measure of need as determined by the number of approved but unfunded applications.

MEDICAL RESEARCH

The President's fiscal 1976 request for VA medical research is a $59,000 increase over the fiscal 1975 level: $87,722,000 in fiscal 1976, compared to $87,663,000 in fiscal 1975. In effect this is a straight-line budget, achieved in part by cutting back $5 million on equipment, and imposed at a time of inflation-pushed cost increases. In real dollars, this amounts to a budget reduction. Such an action, coming at a time of increasing medical school-VA affiliations and when VA physician recruitment and retention are serious problems indeed, runs directly counter to the whole 29-year history of VA-medical school relations. Medical research—including the kinds of research conducted by the VA—is an inextricable part of medical education. Realization of this seminal fact was a key element in the agreement 29 years ago to establish and maintain close working relationships between VA hospitals and American medical school. The reason superb physicians could be attracted to the VA-medical school relationship was

because along with their caring for the sick they could participate in devising new ways to care for the sick and to prevent sickness in the future. This is no time to abandon or erode this synergistic relationship between medical research and medical care in VA hospitals. Yet 19 percent of the VA physicians in an employee satisfaction study conducted last year reported serious dissatisfaction with the availability of time, facilities, equipment and other resources for research. It is impossible to understand how any of these factors are going to be improved under a straightline medical research budget.

Association recommendation.—The association recommends appropriation of $109 million for VA medical research. This is a $14-million increase over the President's budget, and includes restoration of the $5 million for equipment and an inflation-based increase of $9 million.

CONSTRUCTION

The association acknowledges the significant increase of $100 million in the President's request for fiscal 1976 VA construction funds, making the fiscal 1976 request $404 million. Much of the request is earmarked for correction of deficiencies identified in the 1974 quality of care survey. Since that survey also identified recruitment and retention of VA physicians as perhaps the single most important problem for the VA, and since medical education and research opportunities are essential for recruitment and retention of highly trained VA physicians, it is difficult to understand why no fiscal 1976 funds have been requested for research and education construction. The absence of a fiscal 1976 request for such construction is particularly difficult to understand in the face of a $65-million backlog of high priority major construction for research and education purposes and an $8-million backlog of high priority minor construction. These projects include classroom and seminar space, laboratory animal facilities, and various other teaching and research facilities. In many cases they are an outgrowth of improved or new VA-medical school affiliations, or are needed to meet guidelines of the American Association for Accreditation of Laboratory Animal Care.

Association recommendation.—The association recommends appropriation of $362.5 million for major construction and of $14.4 million for minor construction, which includes increases over the President's request of $65 million and $8 million respectively. The additional funds should be earmarked either in the bill or in the committee report, or both, for research and education construction.

STAFFING AND GRADUATE TRAINING

The President's fiscal 1976 request for medical care of $3.7 billion represents an increase of some $400 million over fiscal 1975. Even so, it falls short of meeting critical requirements for core staff, identified in the quality of care survey, and fails to provide for any increase in undergraduate and graduate medical training. These are serious deficiencies.

The quality of care survey proposed additional core staffing of 7,963 in full-time equivalent employment at a cost of $129.4 million. Some of this increase has been met, either through supplemental fiscal 1975 actions or through the President's 1976 request. Still, the planned staff increase falls short by 1,757 FTE of the critical requirement identified by the quality of care survey. Since understaffing has consistently been among the most serious of the various problems facing the VA medical care system, it is difficult to understand why only partial solutions are being proposed. The additional cost of meeting the staffing requirements identified by the survey is $28.4 million.

One of the major activities under the medical care item is the education and training of medical students and housestaff and of other health personnel. From 26,700 medical students and housestaff in fiscal 1973 to 28,100 in fiscal 1975, the program grew as the number of VA-medical school affiliations grew and as new graduate training programs were developed. Now, despite a continuing increase in affiliations, and despite previously programed increases in newly developing graduate training programs, no increase is proposed in fiscal 1976 for the training of health professionals. It is estimated that an additional $2 million would provide funds for the additional training positions needed to meet the normal growth and expansion of this activity.

Association recommendation.—The association recommends a $30.4-million appropriation increase over the requested $3.7 billion for medical care, to provide for increased staffing and to train additional health personnel.

SUMMARY OF RECOMMENDATIONS

The association recommends increased VA health-related appropriations of $152.4 million for fiscal 1976. The table below shows the distribution of the recommended increase.

BUDGET AUTHORITY

[In millions of dollars]

	1976 request	AAMC increase	AAMC recommendation
Medical care	3,668	30.4	3,698.4
Medical and prosthetic research	95	14.0	109.0
Assistance to health manpower institutions	30	35.0	65.0
Medical administration and miscellaneous operating expenses	39		39.0
Construction	404	73.0	477.0
Total	4,236	152.4	4,388.4

Dr. SHERMAN. We believe the country as a whole and the interests of the veterans in particular has been unusually well served by an arrangement developed after World War II as far as the Veterans' Administration hospitals and the Nation's medical schools were concerned.

As a consequence of that arrangement whereby affiliations have been developed for now 113 of the hospitals involving 96 of the Nation's 114 medical schools, several things have occurred as a matter of national benefit.

First, the quality of care afforded veterans in those institutions has definitely been enhanced, this being the primary reason or one of the two primary reasons for that arrangement established in the first place.

The second has been the opportunity through that affiliation to enhance the quality of education afforded in the medical schools with those affiliations through access to a larger and more diverse patient population than frequently is the case, and as far as the quality of the Veterans' Administration hospital staffs in those areas are concerned.

This has resulted in the desire of many other hospitals and of the schools to establish additional affiliations whenever possible and one of the financial items as issue in this series of financial recommendations, appropriation requests, is money for new types of institutions and additional affiliations.

The second area concerns the assistance to established institutions both among the Veterans' Administration hospitals and medical schools and other schools of the health profession.

Where the second type of financial support provides improvement of the training, research, and patient care activities within the appropriation.

The third area involves construction of service and particularly research and teaching facilities, where we would urge a substantial increase in the present level of the President's budget in order to provide for those additional facilities.

This particular type of construction appears especially necessary at this point in time. The problems, as you are well aware I am sure, of recruitment and retention of health professionals, particularly of physicians in these hospitals, has become an increasingly serious one.

The opportunity to offer research and teaching experiences for those physicians is very definitely dependent——

Mr. BOLAND. Isn't the real problem salary?

Dr. SHERMAN. That is the primary problem unquestionably. But in addition to offer particularly younger physicians an opportunity to do research and teaching in addition to the patient care represents a major attraction.

Lastly, we would urge again, as usual, the consideration of increased staffing ratios for most of those hospitals. The fact that very definite improvements have been made belies in some instances the fact that the ratios are still not optimal.

Mr. BOLAND. What ratios do you recommend?

Dr. SHERMAN. I am not prepared, Mr. Chairman, to break it down by specific specialties or disciplines.

It would appear improvements have been made, some small investments, to permit better staffing ratios would be of considerable benefit in the overall area.

In summary then, Mr. Chairman, it is our sense that a comparatively small increase, represented by the Association's recommendations amounting to a total of $152.4 million for fiscal 1976, would be money well invested in order to achieve the purposes of these funds generally and an increase in the sufficiency of the amount requested in the budget.

Mr. TALCOTT. A $152 million increase. Where do we get this $152 million? Do you have some suggestion for that? We are already at $72 billion of deficit financing. It has generally been my impression that the American taxpayer has been very generous. Probably more generous than any other people in the history of mankind, to veterans. This committee has been pretty generous and yet you want $152 million more. Where do we get it?

Dr. SHERMAN. I am not an expert in other areas of the budget. Unfortunately, were I to provide the answer——

Mr. TALCOTT. I am not suggesting any other areas of the budget. But who is going to pay for it?

Certainly doctors have to pay for things that they expend. Medical schools have to pay for what they expend. I am not talking about other areas of the budget, but where will we get the money to pay for it?

Dr. SHERMAN. In this particular area I would suggest, Mr. Talcott, given the pain of Vietnam and our other wars, that this is an area where many taxpayers would be willing to dig in a little deeper in order to provide that comparatively small additional amount of money. I certainly would.

It is one of the few areas I could support, as far as increased taxes are concerned, without having, unfortunately, any suggestion to you, sir, as to where else it might be taken.

In this sense it seems to me what is due these individuals, the vets in these hospitals——

Mr. TALCOTT. Do you disagree with me that America has been more generous than any other nation in the history of mankind to their veterans?

Dr. SHERMAN. That is right. I think this country has been most generous to most of us than other countries have been.

Mr. TALCOTT. Are your proposals a forerunner for nationalizing all of the Veterans' Administration hospitals?

Dr. SHERMAN. No, sir. It would appear that that is a question which needs much more study than it has had so far, even in terms of a single system for our Government hospitals.

Certainly the arrangement between the medical schools and the Veterans' Administration hospitals is a very special one. We don't see that in other areas of Federal hospital systems. For example, except in some areas of the public health system.

We believe for that reason alone there is a special quality about this particular hospital system. It may well be that that should eventually—but certainly we are not as a group prepared to suggest that at the moment.

Mr. BOLAND. Thank you very much, Dr. Sherman.

Dr. SHERMAN. Thank you, Mr. Chairman.

NATIONAL SCIENCE FOUNDATION AND COLLEGE HOUSING

WITNESSES

FATHER T. BYRON COLLINS, S.J., SPECIAL ASSISTANT TO THE PRESIDENT FOR FEDERAL RELATIONS, GEORGETOWN UNIVERSITY

Mr. BOLAND. We will turn to Father T. Byron Collins, a special assistant to the president for federal relations at Georgetown University. Father Collins is a longtime and valuable and beloved figure on the Hill, let me say, and we are delighted to have you with us.

We are always glad to hear you and you serve a magnificant institution. We are very pleased to hear you.

Father COLLINS Thank you. I would like, if I may, to submit my statements for the record. I have two brief statements, one on the National Science Foundation and one on college housing.

[The statements follow:]

NATIONAL SCIENCE FOUNDATION

Mr. Boland, Mr. Talcott and members of this committee, I am Father T. Byron Collins, S.J., special assistant to the president of Georgetown University, Father Robert J. Henle, S.J.

May I bring to your attenttion the interest of Georgetown University in the National Science Foundation request for funds for fiscal 1976.

There is one particular program about which I should like to give specific testimony. This is the RANN program. This is a preeminent program, which marshals the resources and energies of colleges and universities and provokes them to examine the ever-changing national needs and constantly challenges their talents in competitive seeking of RANN funds.

I believe that funds for this particular program should be sufficiently adequate so as to provide a national incentive to the colleges and universities from all over the country to compete for awards. To achieve this, may I recommend to you and your committee the full funding for the authorization amount for fiscal year 1976 for RANN, Exhibit I, which I provided to the committee, shows the distribution of RANN funds to many universities throughout the country and proves the incentive value of these funds.

The House and Senate conference on the authorizing legislation will arrive at a figure in excess of $70 million, if my information is correct. I believe that it is essential that the funding should be at the full authorization level which is a basic minimum.

The RANN program provides essential lead money for universities before undertaking a large program for a specific branch of the Federal Government. For instance, Georgetown University together with other Washington D.C., univer-

sities has made a joint application to and received a grant from the National Science Foundation which enabled us to make an application to HUD for a large grant.

In conclusion, on behalf of Georgetown University I wish to support the funding of all other NSF programs.

I thank you for the opportunity of appearing before your committee.

College Housing

Mr. Boland, Mr. Talcott and members of this committee, I am Father T. Byron Collins, S.J. special assistant to the president of Georgetown University. With me is Mr. Dean Price who is a member of the Society of College and University Planners and a member of the Association of University Architects. Mr. Price is the director of planning and university architect at Georgetown University.

On behalf of many colleges and universities, especially the private ones, may I bring to your notice a problem that has arisen in the field of dormities and food facilities.

First, there is no need for a massive nationwide college housing construction program, thanks to the foresight of this committee, which has benefited almost 2,000 institutions.

The attached study, which was made by the Association of College and University Housing, an organization which embraces half of the students in higher education, shows that the dormitory occupancy rate is climbing back. The dormitories in the State systems are 95 percent occupied and climbing; the private section is 98 percent and climbing (exhibit I).

There is, however, a limited critical need for some Colleges and Universities to provide more living space for students.

The first need is to complete both partially constructed facilities and phased construction facilities. Some colleges and universities are unable to finish projects which are underway because of their inability to obtain long-term construction funds.

The second critical need is for capital funds to enable colleges and universities to modernize heating-cooling systems so as to save energy costs. The savings involved would quickly repay capital investment, if lenders could be found.

The third need is to start some projects which have a proven back-log of years. The attached study of ACUHO (exhibit 2) shows these needs. The estimated cost of these is in excess of $300 million. The selected list of States which is attached to the exhibit shows the specific institutions included in the study.

We request consideration of release of 1-year principal repayment of the revolving fund—about $74 million is the repayment to the U.S. Treasury in fiscal year 1975. The interest should remain untouched since this is calculated in the debt interest. The fiscal year 1975 interest repayment of college housing is about $103 million.

This money would be for projects now ready to proceed and would for the most part be in cities. Such a program would also be of benefit to the construction business.

On behalf of Father Robert J. Henle, S.J., president of Georgetown University and for myself I thank you for the opportunity to testify before your committee.

Survey of Residence Hall Occupancy Trends

Concerned over apparent changes in residence hall occupancy patterns—vacant student rooms and on some campuses empty residence halls—the Association of College and University Housing Officers Research and Information Committee recently undertook a national survey of all member institutions to gather information regarding occupancy trends and institutional reactions to these trends. The survey sought information regarding full time enrollment, student beds available, and student beds assigned from fall, 1969 to fall, 1972. Also, information was collected on housing policy changes, actions being taken by various institutions to improve occupancy and/or operating efficiency, and the impact that selected factors (i.e., junior college enrollment opportunities, student financial aid opportunities, choice or type of on-campus accommodations, etc.) appeared to influence residence hall occupancy at the beginning of the 1972–73 academic year.

The survey was mailed to 388 ACUHO member institutions and usable data received from 278 colleges and universities for a 72 percent return. Institutions

unable to provide enrollment and housing information for the 1969–72 period were not included in the study. Preliminary findings of the residence hall occupancy survey have been summarized and presented as follows:

ENROLLMENT TRENDS

It is of interest to note that ACUHO member institutions enroll approximately 3.4 million students. Member institutions responding to the residence hall occupancy survey and providing usable data reported enrolling 2.8 million students at the beginning of the 1972–73 academic year representing approximately 85 percent of all students enrolled at colleges and universities with membership in the association.

Although full-time student enrollment at ACUHO member institutions increased 8 percent between 1969 and 1972, the actual rate of growth in enrollment decreased each year. Full-time fall enrollment increased 4 percent in 1970, 3 percent in 1971, and 1 percent in 1972 over each preceeding year's enrollment. Full-time enrollment at public member institutions increased 10 percent between 1969 and 1972 while private member institutions increased 3 percent during the same period.

SUMMARY

ACUHO member institutions enroll approximately 3.4 million students and provide residence hall accommodations for approximately 1 million students. Full-time student enrollment at member institutions is approaching zero growth and in the upper Midwest region, a negative enrollment growth is reported for the 1972–73 academic year. The number of student beds available on ACUHO member campuses increased 3 percent between 1969 and 1972. Public colleges and universities reported a 1 percent net increase in the number of residence hall accommodations available while private institutions increased their residential capacity by 8 percent. The closing of older residence halls and the remodeling of others in order to better meet institutional and student lifestyle needs has resulted in a net decrease in the number of available student beds on certain campuses. Residence hall occupancy has decreased since 1969 and the average residence hall ocupancy at the beginning of the 1972–73 academic year is reported at 96 percent. Private colleges and universities reported fewer vacancies with a 98 percent average occupancy when compared with public institutions with a 95 percent occupancy rate. Housing policies are more liberal and when comparing public and private institutions, public colleges and universities are by far more liberal. Student financial aid opportunities, room and board costs, choice or type of on-campus accommodations, availability of off-campus accommodations, food service flexibility, and guest visitation policies are reported to be significant factors influencing single student occupancy at the beginning of the 1972–73 academic year.

Geographically, the greatest growth in full-time enrollment at public member institutions between 1969 and 1972 is found in the Northeast and Southeast regions of the United States while institutions in the upper Midwest region reported only a slight increase in full-time enrollment. At the beginning of the 1972–73 academic year, however, colleges and universities in the upper Midwest region reported a 2-percent decrease in enrollment.

The greatest growth in full-time enrollment among private member institutions is found in the mid-Atlantic region while private colleges and universities in the upper Midwest and Southeast regions reported a negative growth in full-time enrollment between 1969 and 1972. It is of interest to note that only the Northeast, mid-Atlantic, and Great Lakes regions reported an increase in full-time enrollment for the 1972–73 academic year.

Housing Construction Survey

SPONSORED BY ACUHO RESEARCH AND INFORMATION COMMITTEE

The usable data gleaned from the survey conducted in winter of 1974 produced 284 responses to four questions. The responses are shown on the attached data sheet.

Essentially the data indicates that approximately 40 percent of the respondents have need for new housing construction, of which the greatest need for new construction is for apartment type units. Approximately 79 percent of respondents indicated a need for new housing, 64 percent indicated they need to renovate and, of the 205 responses to question 4, 140 responses estimated construction costs with a total estimation of $370,493,000.

The survey left little room for extra comments, but several comments were made with regard to two particular populations to be served with the new housing: (1) handicapped students, and (2) married students.

	Number	Percent	Amount
1. Do you have need for new housing construction? (N=284):			
Particular styles needed (N=110):			
Singles	27	24.5	
Doubles	16	14.5	
Suites	38	34.5	
Apartments	86	78.2	
2. Is need for (N=110):			
Replacement	23	20.9	
Additional housing	67	60.9	
Both	20	18.2	
3. Do you have need to renovate present facilities? (N=267):			
Yes	172	(64.4)	
No	95	(35.6)	
4. The estimated construction cost to meet immediate needs:			
Undetermined	65		
Other responses	140		
Cost			[1] $370,493,000
Range			20,000–20,000,000
Average			2,646,000
Median			1,500,000

[1] Does not include 1 response of $650,000,000 for a planned new campus, and 1 response of $32,000,000 for multicampus system 5-yr. plan.

List of Responding Colleges from Certain States

California:

California Polytechnic State University, San Luis Obispo.
California State College, San Bernardino.
California State Poly University, Pomona.
California State Bakersfield.
California State University, Chico.
California State University, Humboldt.
California State University, Long Beach.
California State University, Sacramento.
California State University and Colleges.
California State College, Sanowa.
California Tech.
Mills College.
Oakland University.
Occidental College.
San Diego State University.
San Jose State University.
Stanford University.
University of California, Berkeley.
University of California, Davis.
California State University, Fresno.
University of California, Irvine.
University of California, Los Angeles.
University of California, Riverside.
University of California, San Diego.
University of California, San Francisco.
University of California, Santa Barbara.
University of San Francisco.
University of Southern California.
University of The Pacific.

Florida:

Florida Technological University.
Miami University.
University of Florida.
University of Miami.
University of South Florida.
Associated Colleges of Florida.

Illinois:
- Augustana College, Rock Island, Ill.
- Bradley University.
- Eastern Illinois Univeristy.
- Illinois Wesleyan University.
- Lyola University of Chicago.
- Northern Illinois University.
- Quincy College.
- Robert Morris College.
- Southern Illinois University at Edwardsville.
- University of Chicago.
- Western Illinois University.

Indiana:
- Ball State University.
- De Pauw University.
- Indiana State University Terre Haute.
- Indiana University Purdue University Indianapolis.
- Indiana University Bloomington.
- Purdue.
- Valparaiso University.

Massachusetts:
- University of Massachusetts, Amherst.
- Boston College.
- Boston University.
- Harvard University.
- Massachusetts State College.
- Southeastern Massachusetts University.
- Northeastern University.

Michigan:
- Alma College.
- Central Michigan University.
- Delta College.
- Eastern Michigan University.
- Michigan State University.
- Northern Michigan University.
- University of Michigan Ann Arbor.
- Western Michigan University.

Montana:
- Eastern Montana College.
- Montana State University.
- University of Montana.

Ohio:
- Baldwin-Wallace, Berea, Ohio.
- Bowling Green State University.
- Case Institute of Technology.
- Denison University.
- Heidelberg College.
- Hiram College.
- Kent State University.
- Marietta College.
- Muskingumy College.
- Oberlin College.
- Ohio State University.
- Ohio University.
- University of Akron.
- University of Cincinnati.
- University of Dayton.
- University of Toledo.
- Ohio Wesluan.
- Xavier University.

Pennsylvania:
- Duquesne University.
- Indiana University of Pennsylvania.
- Kutztown State College.

La Salle College.
Lehigh University.
Lincoln University.
Lycoming College.
Pennsylvania State University.
Slippery Rock State College.
Temple University.
Thomas Jefferson University.
University of Pennsylvania.
University of Pittsburgh.
Villanova University.

Tennessee:
Middle Tennessee State University.
Memphis State University.
Tennessee Tech University.
University of Tennessee Chattanooga.
University of Tennessee Knoxville.
Vanderbilt University.

Father COLLINS. I would like to join the American Council of Education in supporting the funding of the National Science Foundation in all of its aspects and pick out one area for comment. I believe that larger colleges and universities require the full funding of the research applied to national needs.

Now, this particular program, the reason I have advocated it—so far Georgetown University has received no funds from this particular facet, but I personally—and Georgetown is very interested in this, together with the other institutions in the United States—15—that RANN serves a very special function. It keeps the universities and larger colleges geared to meeting special national needs as they occur and I think the attached document shows the distribution to all of the States, including Massachusetts and California.

Their higher education systems are among the highest in the country and they participate actively in this.

I would like to recommend the funding of this be at the level that I conceive as necessary for the proper operation of this, which would be in the amount of the full authorization of the program. My guess is it will be around $72 or $73 million, perhaps $74 million.

The President's budget is about $72 million, so I support strongly that element.

There is one point on it. What this particular program does, it keeps us keyed—and we go after a grant from RANN in order then to get a larger grant from a major agency such as HUD.

We go in and ask for a grant to start under RANN research applied to a national need, get yourselves organized and out of this you go in and offer a complete program to one of the major agencies, such as HUD.

The second point I would like to mention is something that—it is on the college housing program. I would like to express my own gratitude on behalf of the American Council of Education and the National Association of Colleges and University business officers for this.

Out of all the Federal programs I think this has perhaps been the most beneficial to all classes of students going to colleges and universities. The program is large, funded by this committee, about $3.2 billion. It is a repayment program and it has benefited almost 2,000 colleges; it has benefited over 5 million students.

We had a little study done, which is attached, that shows that those colleges and universities that are larger colleges and universities have a very critical need. Our request is not for a national, massive program, but for a national selective program.

The study shows there is capability—done by the Association of Colleges and Universities Housing Offices—that there is a very definite need for selected colleges and universities for this program—by "selected" I mean those that are serving larger populations of students for providing an emergency program for housing.

The specific reason for it is, first, there are projects actually underway that are unable to be completed. From the responses across the Nation, I have listed the ones for the committee.

Mr. BOLAND. Were these built under the college housing program?

Father COLLINS. Partially funded.

Mr. BOLAND. If there was a commitment made, that commitment, I think, would carry through to the completion of that particular project.

Father COLLINS. Well, there are difficulties, though, Mr. Chairman, in some of them, and I would rather agree with you.

Mr. BOLAND. Am I right or wrong when I say that if there was a commitment made to a particular college for assistance under the college housing program that that commitment would carry through to the completion of that particular dormitory or whatever facility is being built?

Father COLLINS. I know of two cases where this is in pursuit, and the agency has not yet denied this. I think they will honor their commitments.

The second is that in the phasing of a project for colleges and universities, they build a section of a project and then phase the second part, and this is part of the responsibilities across the Nation, that there are many that have proven backlog needs that are really critical for them on partially phased projects that they have not been able to get financing under the program of going to a bank and asking for the subsidy.

The banks at this stage and for the last 3 years will not lend funds for dormitory or food facilities even though we have a guarantee of partial payment for the interest under the annual interest grant program.

The third is there is also very critical need for some to modify their heating-cooling systems. The cost of heating and cooling across the country for the colleges and universities is about $1.6 billion and within a year about almost 2 billion, so there is a tremendous amount of money just because of the increase of fuel. That cost can be cut if we can get some capital funding to do some improvements.

Mr. TALCOTT. We have been hoping the students would be the most vocal and active and militant in conserving energy. Perhaps they won't want to cool the buildings and heat them as much and they may be able to achieve a cut of 50 percent by their own volition.

Father COLLINS. We have a very active program throughout the universities to do that.

Mr. TALCOTT. You don't expect utilities will be increased this year, at least the use won't be increased but the cost may be?

Father COLLINS. The program first is 25 percent; in other words, by asking everybody to be a little warmer and colder, close your windows, keep your lights out, putting an active program of the students doing it because they have to do it.

Mr. TALCOTT. That should be easy, 25 percent.

Father COLLINS. That is the national average. We advocate this.

Mr. BOLAND. With respect to the need for capital funds to enable colleges and universities to modernize heating-cooling systems for us to save energy costs, I am not aware of any program under which you could do that, that has been authorized. Are you aware of any?

Father COLLINS. No.

Mr. BOLAND. I don't think it can be done under the college housing program. I would think that this would require some special legislation in order to provide funding for this kind of activity. The college housing program, as I understand it went to college dormitories, common use facilities, the student unions, dining halls, and things like that.

Father COLLINS. And modernization.

Mr. BOLAND. Did it include that?

Father COLLINS. Yes.

Mr. BOLAND. Do you think it would include funding for heating-cooling systems?

Father COLLINS. As modernization, yes; I think it would.

Mr. BOLAND. Mr. Roush, do you have any questions?

Mr. ROUSH. No questions.

Mr. BOLAND. We are delighted to have you, and it is always a pleasure to see you.

Father COLLINS. I would like to put in a plug for the money.

Mr. BOLAND. Thank you.

NATIONAL SCIENCE FOUNDATION

WITNESS

DEAN LEWIS S. SALTER (KNOX COLLEGE), ASSOCIATED COLLEGES OF THE MIDWEST AND THE GREAT LAKES COLLEGES ASSOCIATION

Mr. BOLAND. We will turn to Dean Lewis S. Salter, who appears for the Associated Colleges of the Midwest and the Great Lakes Colleges Association. I understand you are here with reference to the budget of the National Science Foundation.

Dean SALTER. I am.

Mr. BOLAND. We will be very pleased to hear you.

Dean SALTER. Thank you very much. I am very aware from previous experience of the danger you pointed out—saying I submit my statement and then summarizing and doubling the time.

I will endeavor, therefore, to stay fairly close to my statement.

May I say we in Illinois very much appreciated your coming out to give us support, Mr. Chairman, in our attempt to develop a vocational and professional program in energy and environmental related professions. That is not unrelated to what I am here to speak to you about today.

We focus not only on the graduate level but also on the undergraduate level of education, and that is of significance because poor quality in science education here has an unfortunate amplification. One particularly talented subset of undergraduates are receiving preparation to enter immediately teaching careers at the elementary and secondary level, and they are going to be teaching science to all citizens.

Another subset of undergraduates are receiving preparation for graduate studies in science and therefore the quality of their undergraduate science education is very important.

To look at the history of NSF programs in this area, you see them divided roughly in two classes, those which sustain the ongoing process of science education and those which respond to some crisis or newly perceived problem. The sustaining programs of the NSF are those responding to basic needs in science education—needs which are always with us. They were there before Sputnik, and they will continue to exist. We need qualified faculty; we need up-to-date curricula and materials and teachers trained to use them in the elementary and secondary schools. These kinds of continuing needs are common to a variety of institutions, the large university, the private 4-year college, and the community 2-year college.

The emphasis in our testimony on the need for sustaining programs in the National Science Foundation program does not imply on your part an assumption that the Federal Government has any obligation to sustain the program of any particular institution or even any particular class of institutions.

Formula funding, we think, should have no place in this context. We admire the foundation because it has, with fair consistency, stuck by its system of peer panel review of competing proposals with only the most meritorious being funded. We are aware of the criticisms of the peer panel review system but support it as the most effective way yet devised to be sure that excellence is the main criteria for giving awards.

The second category of NSF programs in the area of science education support is one of crisis response, and if you look at the whole post-Sputnik period, you see the gearing up to produce scientific manpower in that crisis covering the period roughly 1957 through 1968. That was a beautiful example of crisis response.

Now, the problem basically is that over the last 5 years there has been an attempt to say, all right, we have overresponded. We now have a glut, so the argument goes, of scientific manpower; therefore, we need to turn off the spigot. In this process OMB pressure has been very effective apparently within the National Science Foundation in bringing about a very drastic cutback of programs which have very great importance for those of us who maintain continuing science education programs for the sustaining of quality. They are but little related to the further expansion of numbers.

Now, in fact, there may be not a glut of scientific manpower, and I defer to Dean Alberty, who shall follow me for a discussion of that point.

Mr. TALCOTT. What are they doing out on the street without jobs, if there isn't a glut?

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Dean SALTER. Dean Alberty, I believe, will present you with data on this. I have systematically been told by my friends who are heads and chairmen of the departments at leading physics departments that the difficulties in placing currently graduating Ph. D.'s in physics (which is one of the most notorious fields in terms of the overproduction) simply are not there.

Is it 1.2 percent, the unemployment level for Ph. D.'s? That is not drastically out of line.

Our point would not be that the Foundation ought to go out of business in maintaining crisis response programs but that there should be a balance. We, in fact, need science education programs which are responsive to shortrun problems but we also need programs which serve to sustain a steady, ongoing quality science program, and that, too, is in the national interest.

We strongly support the new budget allocation set by your colleagues on the House authorizing committee which would rationally integrate funding for needed sustaining programs under the Science Education Support heading with problem-solving programs under the Science Education Innovation title. As you know, that subcommittee made rearrangements within the NSF budget but kept the total Foundation request of $775.4 million fixed. We would urge that you specifically consider designating funds for some of the education programs which I proceed in my paper to cite specifically, as part of the sustained efforts to maintain excellent science in this country.

I begin by listing one which the veterans on this Committee have been hearing about for years, the URP, or undergraduate research participation program. That turns out to have been a very key program, although it involves a small amount of dollars, relatively speaking, in identifying really high level future Ph. D. level scientific talents.

We would particularly commend to your attention a new program with an acronym, CAUSE, comprehensive assistance to undergraduate science education. This new program has been recommended by the members of the Committee on Science and Technology. It would enable 2-year and 4-year institutions and undergraduate components of universities to compete, and, again, I think that is important. We are not asking for formula dispersement but only for the opportunity to submit proposals and have only the most meritorious of those funded. But the competition is for funds to upgrade individual departments and institutions and also groups of departments and a consortia of institutions. We are particularly hopeful you might support this program at the level of $18 million as requested in the authorization because we would see that new program as the kind of anchor pin of a new foundation commitment to sustaining support as distinct from crisis response for science education at the undergraduate level.

I would like to mention the secondary school student science projects. That is another veteran program; $2.5 million is the request, and that is a very small amount of money relatively speaking to buy the opportunity for gifted high school students to participate, while they are still in high school, in a stimulating summer program on a college or university campus. It is a program that helps to identify

very high ability in high potential students and provide them with the impetus for a scientific career.

Mr. Chairman, we appreciate the fact that this committee has in the past shown real concern for NSF science education programs, and we hope that you will continue by your actions to remind the Foundation of their obligation to maintain their sustaining support of improved science education along with seeking answers to immediate problems such as the energy crisis. An appropriation equaling the full authorization for the science education program of support and innovation, we think, could be the most potent reminder of all.

Mr. BOLAND. Thank you very much for your appearance. We appreciate your statement. I think it is very well done.

This committee, as you know, is concerned with the direction the National Science Foundation has taken with reference to science education. We have, I think, agreed more often with the authorization committee, the Science and Technology Committee, and its concern in this very area. We have oftentimes earmarked specifically amounts for science education. As I said, we are delighted to have you with us today.

Mr. Talcott.

Mr. TALCOTT. I would also like to commend Dean Salter on an excellent statement. I would like to make one comment. You suggest that we respond to the full funding of the authorizing committee, and the authorizing committee has a different function than we have. They are a special interest group; they are promotive; they try to get as much for their little niche as they can. We have a different responsibility. We have to fund all of the Federal programs and determine priorities and consider the whole budget. There is no function for us if we full-fund everything that the authorizing committees promote. The Government would go broke the next day if we didn't use a little judgment.

Dean SALTER. I understand. I really do understand that, and if you put the question to me—I am not inviting that—but I have my own personal response, you know, because I do understand that difficulty.

Mr. BOLAND. Mr. Roush.

Mr. ROUSH. No questions, Mr. Chairman.

Mr. BOLAND. Thank you very much, Dean Salter.

[Dean Salter's full statement follows:]

Representative Boland and members of the subcommittee, thank you for this opportunity to comment on the budget of the National Science Foundation. I represent the 25-member colleges of the Associated Colleges of the Midwest and the Great Lakes Colleges Association[1] but I'm speaking to you as a scientist and teacher. My major concern this year, as it has been before, is the science education budget.

The NSF mandate equates science education and research. They are two basic components of a strong national science effort. We defend the science education programs at a time of economic stress not because they benefit us (although sometimes they do when our projects are good enough) but because they are an integral part of good science in this country. The NSF mandate concerning science education reads "* * * to initiated and support * * * programs to strengthen scientific research potential and science education programs at all levels * * *"

[1] The ACM member colleges are: Beloit College, Carleton College, Coe College, Colorado College, Cornell College, Grinnell College, Knox College, Lake Forest College, Lawrence University, Macalester College, Monmouth College, Ripon College, St. Olaf College.

The GLCA member colleges are: Albion College, Antioch College, Denison University, DePauw University, Earlham College, Hope College, Kalamazoo College, Kenyon College, Oberlin College, Ohio Wesleyan University, Wabash College, The College of Wooster.

The word "support" (and not simply "initiate") is significant. The explicit use of "at all levels" takes account of the essentially continuous nature of science education: What takes place at one level is important for the next highest level, and so on up to the most specialized graduate research program. Within this spectrum the undergraduate level of science education is of particular significance; poor quality here is amplified with disastrous effect. One particularly talented subset of young people receive preparation for graduate studies in science, and another subset prepare themselves to enter immediately teaching careers at the elementary and secondary level. Science teaching at both the undergraduate and the high school level share in another thrust, which is of great long range importance for the public interest: The level of scientific literacy of the general citizen.

Science education programs may be divided into two classes, those which sustain the ongoing process of science education and those which respond to some crisis or newly perceived problem. I wish to be very clear about the language I used; one of the key concepts is that of "sustaining."

Certain basic needs in science education are always with us; they preceded Sputnik and will exist in the foreseeable future, barring a radical change in the manner of practicing science. Updated curricula and materials and teachers trained to use them are necessary for elementary and secondary schools. A qualified faculty and reasonably up-to-date instructional scientific equipment are needed by any institution attempting to maintain a good program of undergraduate science education. These continuing needs are common to the large university, the private 4-year college and the community 2-year college. In addition, the institutions offering advanced undergraduate science instruction (i.e., the university and the liberal arts college) need funds which can support an ongoing faculty-student research program.

Sustaining programs of the National Science Foundation are those which award, on a competitive basis, funds to institutions to help their science departments meet these ever-present needs. We do not imply that the Federal Government has any obligation to sustain the program of any particular institution, or even any particular class of institutions. "Formula" funding should have no place in this context. The Foundation has with fair consistency stuck with its system of peer panel review of competing proposals, only the most meritorious being funded. We are aware of the criticisms of the peer panel review system but we strongly support it as the most effective way yet devised to be sure that excellence is the main criterion for giving awards.

My second category might best be called crisis response. There were many examples of such science education programs in the immediate post-Sputnik period, as the Nation geared up to produce increasing numbers of scientists at improved levels of preparation. Current examples of problems or crises include the need for increasing the participation of minorities and women in scientific careers and the attraction of more talented young people into health-related careers.

The history of NSF funding for science education reached a climax in 1957–68 with a massive response to the Sputnik crisis. Large sums of Federal moneys were pumped into the building of new science education facilities, the creation of new doctoral programs and improved high school syllabuses, and the general improvement of science educational quality at all levels. During this period something else very significant took place. A few programs, introduced as part of the crisis response convulsion, distinguished themselces from the point of view of the science education community (faculty and students) as significant for the sustaining of quality, rather than the further expanion of numbers or of facilities. These programs go by acronyms very familiar to the senior members of this subcommittee (URP, ISEP, COSIP). They have recurred continually in testimony from members of the science education community.

We have learned from the post-Sputnik period that there is a need for a modest but steady input of NSF funds into science education—funds independent of manpower considerations and in no real sense to be justified as a short range response to some new crisis. Furthermore, the science education community gathered important empirical information concerning the nature of really valuable sustaining programs. They could become part of a long term strategy of science support, analogous to the continuing commitment of the Foundation to fund basic research. Excellence in science, so vital to the national interest, rests on a steadfast support for both basic research and its underpinning, the education of our young scientists.

Look now at the last 5 years of NSF involvement in science education (see appendix A). One overall trend, of course, is the systematic decrease in the percentage of the total Foundation budget which is allocated for science education (29.2 percent in fiscal year 1968, 8.1 percent in fiscal year 1975). This trend was natural and entirely appropriate; it was the turning off of the manpower spigot (insofar as numbers are concerned), the phasing out of the crisis response to Sputnik. There is a more subtle trend: the systematic drive to eliminate from Foundation support all science education programs of essentially sustaining type. Here is the problem. This can be documented in detail by looking at the funding requests for specific programs such as undergraduate research participation, science faculty fellowships and the instructional scientific equipment program.

NSF BUDGET REQUESTS

[In millions of dollars]

Program	Fiscal year—					
	1970	1971	1972	1973	1974	1975
Undergraduate participation	4.0	5.0	2.0	4.0	1.3	1.8
Science faculty fellowships	3.0	3.0	0	0	0	0
Instructional scientific equipment program	4.0	0	0	2.4	0	3.0

Sources: House of Representatives Committee Print, National science foundation budgets fiscal year's 1972–75.

Without the action of Congress, each of these particular programs might now be extinct.

The present philosophy of the Foundation concerning science education is quite clear: the preoccupation is with process, the process of identifying new problems or crises and devising an appropriate programmatic response. The Foundation, perhaps due to pressures from the executive branch, has endeavored to phase out sustaining programs in favor of crisis response programs.

So long as crisis response dictates the formulation of the Foundation's education programs, at least two disabilities will continue to afflict us. First, the same "on again, off again" tendency of the past 5 years will become endemic. (The academic process involves long lead times, and the uncertainties concerning the phaseout of key NSF programs which serve as sustaining programs, whatever their intent, is destructive.) Second, crises are always materializing in the larger national context, and a program which is justified only as solution to a particular problem is vulnerable when someone else (for instance, the President) perceives a bigger and more immediate crisis to which available funds must be diverted. It is a logical consequence that the Office of Management and Budget impoundment of funds and recent Presidential deferral of funds have hit with particular severity on the Foundation's education programs.

Certainly the Foundation ought to be responsive to problems and immediate crises. We strongly support the new budget allocations set by your colleagues on the House authorizing committee which would rationally integrate funding for needed sustaining programs under the science education support heading with problem solving programs under the science education innovation title.

Because of the quality of science education has the same long-range implications for national leadership in science as does the quality of basic scientific research, Foundation support of education should be funded at a level proportionate to that of basic research. If, for example, in 1976 the Foundation budget in support of science education is 33 percent of that allocated for basic scientific research (a proportion we would support), roughly the same proportionality should be appropriate in looking ahead to the NSF budget for fiscal 1980.[2] We hope that in the near future Congress will be willing to recommend such a ratio between basic research and science education.

Lavish Federal support of science education in the golden years provided useful insights through experience as to how NSF could best effect high quality

[2] Appendix A is instructive at this point. The data entered on lines (6) and (7) show that there was indeed a consistent policy governing NSF support of basic research and science education in the period 1964–1968; funding for each being held at an essentially constant proportion of total expenditure. As the data for more recent years show, consistency disappeared.

programs in grantee institutions. I urge that you specifically designate funds for some of these education programs as part of the sustained effort to maintain excellent science in this country.

1. Undergraduate research participation (known also as URP). The aim of this program is simple: it supports on-going programs of research for undergraduate students in the basic science. At the heart of science education is the actual practice of science, and this is research. URP gives the participating students a real experience with research (its disheartening as well as exhilarating apects) and has played an imyortant role in career decisions for some of our most talented young scientists. We urge that you fund this program in its traditional format at $3 million.

2. Instructional scientific equipment program (ISEP). Familiarity with the basic instruments of scientific practice is an essential component of undergraduate science education. With the increasing sophistication of such instruments, costs of equipping teaching laboratories have risen well beyond the support capabilities of most institutions. It provided support, on a matching basis, for equipment which was linked to course and curricular improvements. It has therefore levered science departments toward course revision and updating—an essential and continual necessity for good science teaching. A sustained program of this general nature, inviting competitive proposals, is another essential foundation stone for a rational program of sustaining science education support. We hope you will support this at $3 million for fiscal 1976.

3. Science facility fellowships and college faculty workshops. The science faculty fellowship program was maximally funded in fiscal 1966 at the level of $4.16 million. It was designed to enable those scientists who had been heavily engaged in undergraduate teaching to retool or recharge through support of a self-designed program of study. Flexibility was an essential design feature: for some science teachers a period of participation in active research is the needed stimulus; for others, a period of study at a graduate science center is essential to acquire a different subject-matter competence, perhaps of cross-disciplinary nature. These competitive fellowships are often matched by institutional funds. Though initiated during the period of crisis response to the shortage of scientists and engineers, a program of this general nature meets so directly the crucial problem of sustaining faculty effectiveness that it constitutes a third desirable element in a national program of sustaining science education. We think a funding level of $2 million is modest but, if specifically designated, sufficient to get the job done.

4. Comprehensive assistance to undergraduate science education (CAUSE). This new program recommended by your colleagues on the Committee on Science and Technology will enable 2-year and 4-year institutions and undergraduate components of large universities to compete for funds to upgrade individual departments and institutions and also groups of departments and institutions. Such a program should make a significant contribution toward the improvement of undergraduate science education by keeping faculty informed about the advances of scientific knowledge and teaching techniques and assisting institutions with their needs for reasonably modern equipment and facilities.

We are particularly hopeful that you will support this program at $18 million because we see such a new program is the anchor pin of a new NSF commitment to sustaining support for science education at the undergraduate level.

5. Local course development. This proposed new program, which is not included in the NSF line item budget, would support local campus innovation. Modest grants to individual faculty or small groups would enable them to spend one or two summers to upgrade their knowledge of research or technology or to design new and better ways to teach their subjects. They may, for instance, adapt an innovative graduate course for the undergraduate curriculum. The projects would not have to be innovative nationally so long as they are innovative to the grantees' campus. Our science faculty have enthusiastically responded to this NSF proposed answer to a continuing need. We hope you will support at the designated level of $1 million funds to begin this program of small grants to individual faculty to improve their teaching and course offerings.

6. Course content improvement and elementary and sceondary teacher institutes. We suggest a continuing program of the NSF to fund new and better ways to teach the ever-growing body of scientific information. A recent report of the Federal Government's national assessment of educational progress reveals that students in three age groups tested during the 1972–73 school year were less knowledgeable and had less ability to solve scientific problems than similar groups in 1969–70.

New and better courses must have teachers to teach them. We deplore NSF's phasing out and restricting the elementary and secondary teachers' summer institutes which introduce teachers to new courses and better ways to teach. Fewer new teachers are entering our schools but the frontiers of science continue to advance.

7. Secondary school student science projects. This program, long known as the secondary student science training program, has enabled high-ability secondary school students to participate in stimulating summer programs on college campuses. A core program to identify high-ability and high-potential students and provide them the impetus for a scientific career at this decisive period will help assure the Nation of continuing supply of the most highly qualified scientists. Funding of $2.5 million is minimum for this program.

This committee has shown its concern in the past for the NSF science education programs as a vital component in our national science effort. We hope that you will continue by your actions to remind the NSF of their obligation to maintain their sustaining support of improved science education along with seeking answers to immediate problems. An appropriation equalling the full authorization for the science education programs of support and innovation can be the most potent reminder of all.

NATIONAL SCIENCE FOUNDATION
SELECTED CATEGORIES

Expenditures by Fiscal Year

	FY 1965	FY 1966	FY 1967	FY 1968	FY 1969	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974	Estimated FY 1975	Budget Request FY 1976
TOTAL (millions of dollars)	416.0	466.4	465.1	505.2	435.0	440.0	496.1	600.7	605.9	566.6	661.5	775.4
Basic Research (Scientific Research Project Support) (millions of dollars)	119.5	157.8	167.9	170.6	176.0	161.7	180.4	248.6	268.1	289.8	341.3	380.0
Research Applied to National Needs (RANN) (millions of dollars)							34.0	53.8	69.9	75.1	82.7[7]	79.5
Institutional Grants for Science (millions of dollars)	11.4	14.5	15.2	14.2	0	14.5	14.5	12.0	8.1	7.0	5.5[4]	5.5
Science Education[1] (millions of dollars)	129.0	143.7[3]	141.7	147.6	117.4	107.0	88.2	74.0	39.9	58.1	57.35[5] 53.35[6]	46.0
Graduate Student Support[2] (millions of dollars)	40.2	44.5	45.9	46.1	39.8	46.0	35.1	24.3	15.3	12.5	13.2	14.8
Science Education as Percentage of Total Budget	31.0	30.8	30.5	29.2	27.0	24.4	17.8	12.3	6.6	10.3	8.7[5] 8.1[6]	5.9
Percentage Relationship of Education to Basic Research	107.95	91.1	84.4	86.5	66.7	66.2	48.9	29.8	14.9	20.0	16.8[5] 15.6[6]	12.1

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[1] includes all precollege, undergraduate and graduate education programs; excludes Public Understanding of Science, and Technological Innovation in Education (Computers in Education)
[2] excludes Science Faculty Fellowships
[3] includes Public Understanding of Science
[4] deferred to FY 1976
[5] before deferrals
[6] after deferrals
[7] excludes transfer of $51.3 million to ERDA in January, 1975

SOURCES: National Science Foundation Annual Report, FY 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973

NSF FY 1976 Budget Statement, February 3, 1975

COMPILED BY: Midwestern Colleges Office
February, 1975

WITNESS

DEAN ROBERT A. ALBERTY (M.I.T.), ASSOCIATION OF AMERICAN UNIVERSITIES, NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES, AND THE AMERICAN COUNCIL ON EDUCATION

Mr. BOLAND. We will now turn to Dean Robert A. Alberty, from M.I.T., with the Association of American Universities, the National Association of State Universities and Land-grant colleges and the American Council on Education.

You appear here with reference to the national science foundation budget.

Dean ALBERTY. Mr. Chairman and members of the committee, the memberships of these associations have an abiding concern with the national science foundation appropriations because virtually all Federal funds for academic science are spent in the laboratories of these institutions. Moreover, they train virtually all of the Ph. D.'s in science and engineering in the United States. Thus, despite the fiscal constraints which continue to confront the academic world, these institutions represent an academic science resource without parallel anywhere in the world.

Mr. Chairman, before addressing specific areas of concern, may I express the appreciation of the member institutions of these associations for the opportunity you and your colleagues provide us through these hearings to discuss central issues of importance to the Nation and to the well-being of academic science. We are here today to recommend how we believe the strength and vitality of academic science as a national resource can be enhanced. We recognize that our recommendations come to you in the context of many others. Further, we recognize the various economic pressures in the Nation at large that you must take into account in your determinations. We, therefore, seek to be responsible in our requests and we are grateful for the hearing you have afforded us.

During the last year or so the Nation has begun gearing up for still one more crisis, this time in energy production. Fifteen years ago the crisis was in space science. Only a few years ago the crisis (now regrettably put aside partially because of the energy situation) we faced was in protecting the environment. In each of these, universities have been called upon to help by establishing emergency programs. We would respectfully submit that this crisis-to-crisis view of the role of universities is based on a misconception and misunderstanding of the nature of science and engineering research and development. We believe that the country has wasted resources by responding to emergencies with crash programs, rather than by building and sustaining strong, flexible, continuing support for science in universitities. If stable support had been provided for departments of science and engineering and for their continuing basic research, as well as for research directly related to the current needs of the Federal agencies as they perceived their needs, the Nation's capacity to deal with unforseen problems—such as the energy related problems—would now be much enhanced.

We cannot emphasize too strongly the role of the National Science Foundation in supporting basic science. While science must contribute to the solution of current problems, it must also be prepared to contribute to the solution of the unforeseeable problems of the decades ahead. Basic research is our investment in the future. No other Federal agency has clear statutory authority to support basic research as such without regard to application to the applied mission of the agency. Much excellent basic research is and should be provided by a number of Federal agencies, but the role of NSF is distinct and critically important.

We support as a minimum the level of funding ($380 million) requested by the Administration in fiscal year 1976 for scientific research project support. We commend this committee for your continued understanding of and support for basic research, and we urge you to fund this program at the maximum level authorized by the Congress.

As we have stated before the NSF authorization committee on both Houses of Congress and on previous occasions before this and the Senate Appropriations Committee we choose to emphasize, in addition to the basic research support function two programs of greatest concern to the institutions we represent: the institutional improvement for science program and graduate student support.

INSTITUTIONAL IMPROVEMENT FOR SCIENCE PROGRAM

During the last few years we have witnessed a consistent Administration policy aimed at eliminating the institutional improvement for science program. We deeply regret that this year the House also has recommended the elimination of this program.

In light of the efforts to terminate IISP it might be helpful to the committee if we reviewed very briefly program's basic Federal mission. From 1961, when the program was begun, until 1969 only the academic research activities of NSF were included in the calculation of science improvement awards. Following an extensive debate across the Federal Government in 1969, a debate which precluded the calculation of new awards until early in fiscal year 1970, the decision was made to broaden the program's base to include virtually all Federal research and development funds awarded to colleges and universities. Today the academic research programs of 14 Federal Government Departments and agencies are used to calculate science improvement awards. In the current base year, federally funded academic research activities totaled about $1.028 billion, of which only $351.4 million (approximately 34 percent) was NSF funds. Thus its science improvement mission is truly Government-wide. The program is intended to address the problems and opportunities of Federal project research programs in all Federal agencies which conduct research in universities and colleges. The National Science Foundation, we would emphasize, performs an important service for all federally supported academic science by administering the institutional improvement of science program.

The table on the next page shows the history of this particular program, and I just want to emphasize the number of government agencies whose grants to universities affect the amount that a given university receives under this program. It is an impressive group of agencies.

[The table follows:]

INSTITUTIONAL IMPROVEMENT FOR SCIENCE PROGRAM

Expenditures by fiscal year

Fiscal year:	*Millions*
1965	$11.4
1966	14.5
1967	15.2
1968	14.1
1969	0
1970	14.5
1971	14.5
1972	12.0
1973	8.0
1974	7.0
1975	5.5

CURRENT PROGRAM BASE BY AGENCY

	Amount (millions)	Percent
National Science Foundation	$351.4	34.1
Department of Defense	232.8	22.6
NASA	102.6	10.0
Department of Agriculture	93.8	9.1
Atomic Energy Commission	85.0	8.3
Department of Health, Education, and Welfare	[1] 58.6	5.7
Department of Commerce	24.9	2.4
Department of the Interior	22.2	2.2
Environmental Protection Agency	18.6	1.8
Department of Transportation	15.2	1.5
Office of Economic Opportunity	8.7	.8
Agency for International Development	8.4	.8
Department of Labor	5.0	.5
Department of Housing and Urban Development	.9	.1
Total	1,028.1	[2] 99.9

[1] Includes USOE and SRS.
[2] Total does not add to 100 percent due to rounding.

In considering the program we hope that this committee and the Congress will continue to bear in mind this important role of the National Science Foundation. We fear, however, that the understanding of the basic mission of the institutional improvement of science program may have become somewhat confused in recent years.

It may be difficult to perceive at first why the relatively small sums which the program has distributed in the form of discretionary flexible funds should be so significant. Yet to us, eliminating these funds appears to be a serious error in public policy for reasons I would like to explain.

The problem is that the Federal project research system places investigators, schools, departments and the university in a rigid position. None of the project funds can be used for such purposes as support of exploratory research which may or may not later warrant support as an independently funded project. Younger investigators who are clearly capable, but not yet ready, to enter into national competition—which is very severe—also receive modest support from the program. Frequently this is their only source of support. This venture capital invested in exploratory research and in the coming generation of investigators pays high dividends. Other lines of productive investment include emergency replacement of broken down research equipment,

or payment of salaries for a short period to investigators who unexpectedly become available. Federally funded project research does not provide for these needs.

The availability of modest sums for such purposes, which is exactly what a grant from the institutional improvement for science program provides, is an ingredient indispensable to the fully effective operation of a competitive Federal research project system. The two do not represent different philosophies or approaches, but rather complementary means of financing academic science so that the total enterprise can operate most effectively. The situation is analogous to the functions of gasoline and oil in a motor. The research projects are like the gasoline. They provide the power and drive. The institutional improvement for science program is like the oil. An engine runs better when some oil is present and the total academic research enterprise runs better when some fluid funds are available.

Still another misconceived idea has been advanced by the administration as a reason for stopping the institutional improvement for science program. That is, the grant is to build up institutional research capabilities, and since the capacity is now built up such support is no longer needed. The purpose of the funds has not been to build up institutional research capacity in the sense of expanding already well established research capability. The purpose has been to make existing research programs more productive and efficient. That need is as great as ever.

Another objection that has been raised to the program is that it helps the rich get richer. What the award does is to provide to all institutions a percentage of their project grants, up to a maximum payment which decreases the percentage allotment to the larger universities. Since the research project funds themselves are awarded in national competition, the institutional award reflects both the capacity of the institution to carry on research of high quality and its need to have flexible funds to counteract the rigidity inherent in the project system of support.

There is a fairly widespread misunderstanding that these funds are used as a means of increasing the power of the university president or his office at the expense of the working scientist. Nothing could be further from the truth. The ability to move quickly to meet unforseeable emergency needs or to take advantage of unforseeable opportunities is needed on behalf of the individual investigator and working groups. Without such funds, which in fact generally are administered by a faculty research committee and not by the president or his office, everyone is confined to the narrow lines of expenditure fixed by grants and contracts for specific projects.

I also want to make the obvious but important point that the eroding financial position of universities has as an important component a sharp decrease in the availability of discretionary funds in all areas. So the effect of the general financial stringency is not only to reduce expenditures but also to very sharply curtail the ability to act quickly and flexibly to meet program emergencies and to seize unanticipated research opportunities.

Both the administration, and the House have stressed the importance of redirecting academic science to deal with social and economic problems of high priority, now they would reject the form of support which is most productive in bringing about the very kind of redirec-

tion that is desired. The university science community with its capacity to interpret new information and extend knowledge is a national resource of the highest value. Sound national policy should assure that the capacity of university science will be sustained.

Only with flexible program funds of the kind provided by the institutional improvement for science program on behalf of the Federal project system can that system maintain its ability to respond to the Federal Government when it is called upon to shift the direction of research to deal with important social problems.

For these reasons we have strongly urged the Congress to retain the institutonal improvement for science program, and we are gratified that the Senate bill has done so. We are hopeful that the final appropriation will include funds for this program at the full authorized level.

SUPPORT OF GRADUATE STUDENTS

The level of Federal graduate fellowship and traineeship support has been a matter of continual concern to our member institutions. As a Nation we must insure that the best minds of our young people have the opportunity to pursue advanced training at the graduate level, independent of their personal financial resources. They should be supported without regard to academic field, although today we are emphasizing the training of scientists, including those in the behavioral sciences, and engineers. This goal should be a constant one and not subject to transient changes in current conditions of the labor market. A long leadtime for the training of scientists is required ranging from 3 to 7 years. When their skills and talents are needed they must be readily available.

The decline in Federal support for graduate students has been drastic over the past half-dozen years. In 1968, students appointed on Federal fellowships and traineeships numbered 51,400; by 1974, that number had dropped to an estimated 6,600. In 1967, there were 11,000 federally supported first-year graduate fellowships; by 1972, there were 2,000. In 1968, NSF obligated $45 million for fellowships and traineeships; we believe the administration is short-sighted in restricting the number of NSF fellowships to 500 (approximately $3.25 million) new starts per year.

In the words of the January 1974, report of the National Board of Graduate Education, "Federal Policy Alternatives Toward Graduate Education," "the rapidity and severity of federal cutbacks for the last 5 years will, if continued, undermine the Nation's capability for high quality graduate education and research . . ."

Among the more prominent of the reasons offered for sharp cutbacks in graduate student support is the belief that, as a nation, we are producing an oversupply of advanced scientists and engineers. In this connection, there is a widespread myth that a lot of Ph.D.'s (in science and engineering) are unemployed. In fact the 1973 unemployment rate for scientists and engineers—the group of primary interest to the National Science Foundation—was 1.2 percent. (National Academy of Sciences, Doctoral Scientists and Engineers in the United States, 1973 Profile.) This was a study carried out by the National Academy of Sciences, with which I had a small connection. This is, in fact, almost an irreducible level of unemployment, when one takes

into account the inevitable unemployment that exists as a consequence of shifts from job to job, changes in employment levels in individual firms, etc. The 1.2 percent unemployment figure does not indicate a Ph.D. glut, but rather signs of a shortage situation. This contradicts the notion of any Ph. D. glut in the areas of interest to the National Science Foundation.

It is equally clear that more demands for highly trained manpower will be generated by the activities of the Federal Government itself including NSF. Areas of high priority identified by Federal Government, of which the current emphasis on energy research and technology is an example, will require cadres of people capable of carrying on effective research in fields that cannot now be identified, as well as those that are of immediate urgency. Many of them will not be able to be trained entirely in traditional disciplines but will have to be educated to take a problem rather than a discipline approach. They will have to be trained to work with others from different backgrounds and different disciplines.

In the face of these needs the administration over recent years has reduced the graduate student support program and sought to eliminate entirely the traineeship program. We believe that an opportunity presents itself today in the proposed expanded NSF budget. We urge this committee to mandate in its report that a substantial portion of the funds which will be appropriated for the RANN program be used to create an effective program encompassing traineeship support for graduate students as well as support for developing new curriculum, training devices, and materials and experiences for joint faculty participation. In short, we are seeking a new training grant on the NIH model that would be useful for obtaining the objectives sought in the RANN program. Expansion of research grants either in the basic research program or the RANN program does serve to some degree as a means of supporting graduate students by participating in programs directed by senior professors. However, we believe that a formal program would be more effective for training graduate students than the catch as-catch-can approach that obtains under the project grant system.

The training activities we suggest are not intended to expand the pool of trained manpower in general, but to provide the opportunity to very select students of high competence for rigorous training programs to prepare them to work on the solution of problems of national priority.

Last year the National Board on Graduate Education recommended a conservative level of 1,000 new NSF fellows each year, with this warning:

> If research support fails to keep pace with inflation or if the assistantship component of research funding declines, if states fail to maintain teaching assistantship levels, if student loan programs fail to be adapted to meet rising charges . . . , or if borrowing by graduate students is pushed to the point where significant numbers of able students are discouraged from continuing their education— then the proposed base fellowship program would be inadequate whatever its theoretical desirability under favorable circumstances. If several of these adverse conditions should materialize, the continued existence of quality

graduate education would be in doubt, and, in that event, a significant increase in the number of Federal fellowships would be necessary.

(Source: Federal Policy Alternatives Toward Graduate Education, National Board on Graduate Education, 1974, p. 55.)

Several of these contingencies, in fact, have occurred. In March of this year the Carnegie Council on Policy Studies in Higher Education issued a report, The Federal Role in Postsecondary Education: Unfinished Business, 1975–1980 (Mar. 6, 1975, sec. 5, pp. 8–9), recommending 5,000 2-year fellowships for beginning graduate students, 5,000 predoctoral fellowships and 2,000 traineeships in newly developing fields. We commend these recommendations to the Congress.

In sum we hope that the committee will fund the graduate student support program at the level ($15.8 million) authorized by the House. While it would not meet the needs we have identified it would restore funding to approximately the fiscal year 1973 level.

Although we are concentrating on the issues of graduate education and institutional improvement for science for the reasons mentioned, we emphasize that we see this Nation's scientific education and research program as a chain or continuum beginning long before students enter colleges and universities. Certainly one vital link in this chain is undergraduate science education. Only 6 years ago the total funding for all NSF science education programs was more than $120 million. This has been cut to half that amount. Particularly affected have been undergraduate programs. This has taken place at a time when the cost of science education has gone up much faster than the general rate of inflation. Further, education equipment considered unique or unusual only a couple of decades ago now is basic and essential to carry on science education in all undergraduate institutions.

The quality of our research depends on our graduate education and the latter depends on the quality of our undergraduate education. Small liberal arts colleges and the colleges of arts and sciences at major universities are the feeders of well-trained students who enter our graduate programs. To the degree that these are weakened by lack of support the entire stature of academic science and the national science effort is weakened. We fully support the testimony being presented today by our colleagues who urge support for undergraduate science education programs.

In conclusion, we believe that NSF has developed a sound, diversified set of programs that is well calculated to keep science in this country strong. However, adequate funding of high priority programs will not be possible within the total proposed by the administration and by the total authorized by the House. Relatively small increments applied selectively to important programs are needed, and are now being considered by the Senate. We hope that the final appropriation will provide these amounts.

Mr. Chairman, we appreciate this opportunity to present the view of our member institutions on the fiscal year 1975 National Science Foundation budget. If we can provide additional data or comments we would be pleased to respond to your requests.

Mr. BOLAND. Did the Association of American Universities make any appearance before the legislative committee with reference to the National Science Foundation budget?

Dean ALBERTY. Yes; and I personally testified there during oversight hearings with regard to the National Science Foundation Fellowship Program.

Mr. BOLAND. Did you also stress, while you were there, the program for the institution improvement for science?

Dean ALBERTY. These associations testified in vigorous support of the institutional improvement for science program. I did not, however, present the authorization status. Vice Chancellor Lattie Coor of Washington University in St. Louis appeared there on behalf of the associations.

Mr. BOLAND. The legislative committee did not fund the institution improvement for science program, did it?

Dean ALBERTY. I believe that is right; yes.

Mr. BOLAND. As I recall, we provided some $5½ million dollars for the program in 1975.

Dean ALBERTY. I believe that is right, sir.

Mr. BOLAND. Do you, or Dean Salter, or anyone here who is appearing with respect to this particular activity, institution of improvement for science, have any idea of why the legislative committee eliminated this particular program?

Dean ALBERTY. I do not know; no.

Mr. BOLAND. Thank you very much for a very full and detailed statement. We appreciate your appearance.

Mr. Talcott.

Mr. TALCOTT. Again, you have presented an excellent statement. There aren't any less graduate students now than there were in 1968, are there? I get the impression there are quite a few more.

Dean ALBERTY. In the areas that are of interest to the National Science Foundation, the number of graduate students has declined somewhat, although the number in the country as a whole is up.

Mr. TALCOTT. You have a narrow interest in graduate students, then; right?

Dean ALBERTY. The National Science Foundation uses science in a very broad sense. It includes the quantitative social sciences, sociology, anthropology, political science, and, of course, engineering.

Mr. TALCOTT. The unemployment rate for scientists and engineers, is that a combination of the two?

Dean ALBERTY. Yes; that is. That is for the group that is of interest to the Science Foundation.

Mr. TALCOTT. There was testimony, I think, at one time there were a lot of scientists and engineers, particularly space scientists and engineers, who if not unemployed were doing something they didn't want to do, like working in gardens and gas stations. We were concerned about that.

Dean ALBERTY. That is right. There was a problem as the space program was reduced. That didn't affect the doctorate so much, and this figure I gave is for engineers with doctorates. They have a lot of options in front of them. Scientists and engineers without doctorates would have a higher rate of unemployment, but I don't know what that is currently.

Mr. TALCOTT. Thank you very much.

Mr. ROUSH. I have no questions, Mr. Chairman.
Mr. BOLAND. Thank you very much, Dr. Alberty.

NATIONAL SCIENCE FOUNDATION

WITNESS

PROF. HENRY A. BENJAMIN, ASSISTANT PROFESSOR OF NATURAL SCIENCE, AMERICAN INTERNATIONAL COLLEGE FOR THE ASSOCIATION OF AMERICAN COLLEGES, AMERICAN ASSOCIATION OF STATE COLLEGES AND UNIVERSITIES, AMERICAN COUNCIL ON EDUCATION AND THE NATIONAL COUNCIL OF INDEPENDENT COLLEGES AND UNIVERSITIES

Mr. BOLAND. We will now turn to Prof. Henry A. Benjamin, who appears here in regard to the National Science Foundation budget. He is assistant professor of natural science, American International College for the Association of American Colleges, American Association of State Colleges and Universities, American Council on Education and the National Council of Independent Colleges and Universities. Where is that?

Professor BENJAMIN. In Springfield, Mass.

Mr. BOLAND. You can't beat the American Association of State Colleges and Universities.

Is there a difference in the Association of American Universities and the American Association of State Colleges and Universities? It is different, is it not?

Professor BENJAMIN. It is different. The American Association of State Colleges and Universities (AASCU) has 317 members in 47 States, the District of Columbia, Guam, and the Virgin Islands. These 4-year institutions of higher education, which educate about 25 percent of all American college students, include some colleges and universities with which members of the subcommittee may be familiar—such as North Adams State Colleges, Westfield State College, Worcester State College, and the other colleges and universities in the Massachusetts State College System; California Polytechnic State University-San Luis Obispo, and most of the other members of the California State College and University System; Indiana State University and Ball State in Indiana; and Saginaw Valley College in Michigan.

Mr. TALCOTT. May I ask a preliminary question?

Mr. BOLAND. Yes.

Mr. TALCOTT. The National Council of Independent Colleges and Universities, can you tell me what you are independent of?

Professor BENJAMIN. These are private colleges.

Mr. TALCOTT. So you are independent from the public college?

Professor BENJAMIN. We are nonpublic colleges.

Mr. BOLAND. Well, I am certainly delighted to have a constituent of mine down here. I presume you were not picked out because you come from Springfield and because I happen to sit on this committee.

Anyway, the American International College is a small institution but a very real fine one. I know of no college that serves the needs of a particular area better than this one. We are delighted to have you here.

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Professor BENJAMIN. Thank you very much, Mr. Chairman and members of the committee. I am Henry A. Benjamin, professor of natural science, American International College in Springfield, Mass., an institution dedicated to excellence in the arts and sciences.

In appearing before you today, I am representing four national higher education organizations: the American Association of State Colleges and Universities, the Association of American Colleges, and the National Council of Independent Colleges and Universities. These associations comprise most of the 4-year public and private undergraduate liberal arts and science colleges in the country. The American Council on Education, to which most of these institutions belong, joins in supporting this testimony. In these colleges the teachers of science in the Nation's elementary and secondary schools receive the basic foundation of their profession. Here, the engineers and technicians making up the manpower which keeps America at the forefront of the world industrially learn their skills. And, last but not least, these are the institutions which prepare students to receive advance training in the Nation's graduate schools. Thus, you can see that these colleges are prime movers in our scientific and technological education process.

We were greatly concerned by the apparent deemphasis of undergraduate science education in the administration's fiscal year 1976 budget request for the National Science Foundation. We are pleased to see that the Congress has recognized the importance of sound science education in the formative stages and has provided adequate authorization for these segments of science education. I am testifying today to request that the appropriations be made to meet the promise, so that we can continue to do the work which is so vital to maintaining the broad, well-educated scientific, industrial, and educational infrastructure in this country for the tough years which lie ahead. America faces ever growing competition in a world which is developing the scientific and industrial sophistication in which we at one time reigned supreme. This is not the time to slacken our efforts and allow our commanding position in science and industry to be eroded for want of a relatively few dollars invested in science education. The multiple effect of this modest investment is significant.

Let me comment at this point on how the manner in which science education funding is approached affects our colleges and universities. We need to have a sense of confidence and a degree of performance for a more or less expected level of funding over an extended period of time. We find it difficult to wait anxiously each year to see what the NSF program priorities will be and how much the Congress is likely to appropriate. This plays havoc with colleges that are trying to establish sound manpower levels and keep budgets in balance. While we all must be willing and able to respond to the vicissitudes of economic change, there must be some reasonable level of certainty to permit proper management of resources. Academic programs take time in preparation and must be announced far in advance if they are to be of much value. Facilities must be allocated, schedules created, and personnel engaged far ahead of yearly congressional action. In order to make these substantial resource and manpower commitments, institutions should be assured of long-range Federal support. In fact, it might

be well to consider authorizing forward funding of science education programs as is done with other education programs.

I might add here that nothing inhibits creative thinking and new programs more than doubtful funding. In my experience as an institute director, I have agonized with the students many times about the continuation to complete their degree programs after they have individually made commitments in many areas.

In addition, a distinction should be made between long-range sustaining support and the more immediate crisis-oriented programs.

We recognize that there are urgent problems, like the energy situation and the environment, which demand special attention and require massive dedication of resources in the short term. These efforts, however, should not affect the longer range Federal support for science education or bring on a serious diminution of funding for sustaining programs in either education or research.

Both education and research are slow, deliberate processes not given to spectacular results, but, as I am sure you members of the committee well know, the payoff lies in the soundness of maintaining the professional and technological base upon which the crisis-oriented efforts rely so heavily. I hope we have learned our lesson from the "Sputnik" experience when we had to invest vast sums of money and make extraordinary efforts just to create this base upon which the space program could be developed. We have this base now; let's not lose it by being parsimonius with funding undergraduate science education.

We certainly are not suggesting that the NSF programs be designed to relieve any financial distress in our colleges. This is properly the province of programs specifically dedicated to this purpose. But, the Federal Government's efforts to support science education ought not to contribute to a distressful condition either. Much credit goes to the Congress which over the years has recognized the importance of permanence and assured funding support by authorizing and appropriating the money necessary for effective science education programs. The realization by our colleges of this support goes a long way toward relieving anxieties in this area, and thus, overcomes the adverse effect that capricious Federal funding can have on college budgets. For this, we are grateful and hope that this support will be forthcoming now and in the years ahead.

My particular concern, of course, and that of the association for which I speak, is the strength of the undergraduate college science education programs. To quote the NSF report of January 1975 on NSF Science Education Programs, "Undergraduate education represents a situation intermediate between the specialized independence of graduate education and the broad spectrum of student needs at the pre-college level." Realizing the catalytic implications of undergraduate science education, the various Federal programs dedicated to this objective at the NSF take on special significance.

We find those programs which are designed to upgrade the quality of instruction and the scientific equipment for the undergraduate institutions quite valuable. Although the levels of authorization are modest, the funds have a vital impact in colleges like mine. We are especially pleased to find both science faculty fellowships and faculty research participation authorized for this coming fiscal year. Coupled

with the programs for undergraduate research participation and student oriented studies, these programs are extraordinarily valuable in stimulating interest in basic research and understanding in science technology at the undergraduate institutions. Keeping faculty current and involving students in the scientific education and research process at this stage have beneficial long range consequences.

The science faculty fellowship program, which had been eliminated in the administration's budget request, can be especially useful for persons like myself who are heavily engaged in undergraduate teaching. We need periodic retooling, so to speak, in our fields to keep abreast of the rapidly changing state of knowledge. I know I have had opportunities to participate, and these have been most valuable in terms of returning, in my case, to AIC and passing on the kind of expertise that I have received to the students.

These are competitive grants with peer review selection to assure fairness and comprehension. In addition, the NSF alternatives for higher education program stimulates innovation in academic program development with emphasis on flexibility and cross-disciplinary approaches.

We applaud the authorization levels in the student-oriented study and research programs which are increased from $5.8 to $6.5 million over last year. These programs bring students and faculty closer together and develop in the students an appreciation of what is entailed in being a research scientist.

The return of a COSIP-type program, now entitled comprehensive assistance to undergraduate science education—CAUSE—is greeted with excitement. The authorized funding level of $18 million will mean that this program should exert significant influence. Over the years this kind of program together with support for instructional scientific equipment provided the means for both academic renovation as well as innovation. The emphasis on underdeveloped and minority institutions makes these programs particularly attractive. In conjunction with the ethnic minorities in science programs this will mean a broadening of the base of scientific understanding in the Nation's communities which should bring many more young people into the mainstream of scientific and technological activities.

The manner in which the programs have been reordered in the authorizing legislation makes considerable sense. We are especially pleased, also, that the minimum obligation requirements placed on certain programs include a number of important science education activities.

In conclusion, Mr. Chairman, we urge the committee to approve appropriations which reach the authorized level for support of undergraduate science education. These authorizations are reasonably adequate to permit us to continue to do the job needed to maintain effective levels of scientific knowledge in America today. We thank you for the opportunity to appear here today and are willing to respond to your questions.

Mr. BOLAND. Thank you very much, Professor Benjamin. We are delighted to have you.

Any questions, Mr. Talcott?

Mr. TALCOTT. I want to compliment the association for selecting you to appear before us.

May I ask just one question? Do you have any more or less uncertainty with the level of appropriations that you get from the State, or from private philanthropy, compared with the Federal Government?

Professor BENJAMIN. It is my understanding that State Government higher education budgets, which are based on the number of students who will be attending higher education institutions in the subsequent academic year, are usually complete by early June. Thus, State supported colleges and universities generally know about 3 months in advance of the beginning of the academic year which their operating budgets will be.

Mr. TALCOTT. I was speaking on behalf of all the colleges. I was wondering if they have more problems with the Federal Government insofar as worry and doubt compared with private philanthropy?

Professor BENJAMIN. I would say most of the funds come from the Federal Government.

Mr. TALCOTT. This is one of the reasons I asked what you were independent of. I was thinking you were going to say you are independent of the Federal Government, but that is not the kind of independence you are——

Professor BENJAMIN. Seeking.

Mr. TALCOTT. Thank you.

Mr. BOLAND. Mr. Shipley?

Mr. SHIPLEY. No questions.

Mr. BOLAND. Thank you very much. We are delighted to have you.

NATIONAL SCIENCE FOUNDATION—RANN PROGRAM

WITNESS

GWYNN GARNETT, PRESIDENT, GARNETT, INC.

Mr. BOLAND. We now turn to Gwynn Garnett, president of Garnett, Inc. You appear with reference to the RANN program in the National Science Foundation budget. We are pleased to have you, and you may proceed.

Mr. GARNETT. Thank you, Mr. Chairman. I appreciate this opportunity. I have filed a short statement, and I will submit that for the record.

Mr. BOLAND. It will be included in total in the record.

[Mr. Garnett's statement follows:]

Mr. Chairman, I am Gwynn Garnett. Thank you for this opportunity. I have spent a lifetime in food and agriculture in and out of government, in and out of United States of America, mostly in business, mostly my own agri-business. Currently I am preoccupied with farming and producing beef. My résumé is attached. The following comments and observations are drawn from those experiences. They are directed to NSF/RANN.

I wish to establish the need to increase food production and decrease relative production and marketing costs, as a national need, within the purview of RANN's terms of reference. Further that we have the technology to do that. Research applied to national needs in food and agriculture could contribute meaningful solutions to the nation's food problems already upon us and down the road.

For years, food prices have moderated inflationary pressures in other sectors of the economy. We have learned in recent years and had reaffirmed last week that retail food prices now contribute to inflationary pressures. The price of

adequate human diets is being pushed beyond the reach of an increasing portion of the population who then require food stamps and other public assistance. Food exports have a double edge—they are needed in other countries; we need to export more to balance international payments. Altogether it is a national need to increase food production with lower production and marketing costs. This can be done.

We already have much of the research and technology needed to make meaningful contributions to that end. We lack "systems," in many cases, through which this research can be applied. To develop these systems requires the solutions to a multitude of interrelated complex problems. A new generation of research and development is required—a new order of sophisticated problem solving methods.

Those were developed and proved in the space program and can be adapted and applied to food and agriculture systems analyses and procedures, interdisciplinary coordination, sophisticated computer application and related technology. RANN is the most likely agency in government to adapt and apply these proven methods to national needs in food and agriculture. Many of its employees had experience in the space program.

I submitted a proposal to NSF/RANN to fund a project to apply available research to certain national need in food and agriculture. I discussed it and food and agriculture problems generally with a principal officer of RANN. I learned from him that legislative terms of reference and authority of RANN do not permit it to fund research applied to national needs in food and agriculture, such as I had proposed. His letter is attached.

I no longer have interest in the project I submitted. However, I think it may be useful for this committee to consider the restrictions on RANN in relation to the national needs in food and agriculture which I shall describe. In so doing, I wish to draw sharp distinctions between food and agriculture research and agrisystems through which food and agriculture research is applied. The following illustrate.

Efficient agrisystems and subsystems have already been developed for the production of sugar, milk, poultry, pork and others. This is not always true for the marketing of these products.

Beef (about which I am most familiar): We have research and technology to squeeze $100 to $150 per head out of the costs of producing and marketing beef. We do not have the systems and subsystems to apply that research. We could have them.

Soybeans: We have the research results to increase the yield of soybeans to 60 to 90 bushels per acre, yet the national average is around 30 bushels. We can develop systems to apply the research to increase soybean yields to levels which could contribute to national needs in significant ways.

Forages: One billion acres are used for forages in the United States. These are producing at around 20 percent of potential. We have the research but not the systems to apply that research to satisfy the national needs. We could have them.

Wheat and Corn (on traditional family farms): Research is available and pilot commercial operations have proved that meaningful savings in production costs can be made for wheat and corn on traditional family farms via new agrisystems. These savings are enough to assure the viability of hundreds of thousands of family farms that are doomed, otherwise.

Capital and energy: In the future, capital and energy may be the principal factors that limit food production. We have the research to increase the efficiency of capital and energy uses but we need new agrisystems to apply that research.

My farm: Has 208 acres, a small traditional family farm. This type of farm is doomed unless it can be coordinated into an agrisystem which brings available research and technology to bear on its problems. Hundreds of thousands of such traditional family farms are similarly doomed. The alternative to saving these family farms by coordination is big corporate farms, whose reliability as producers of the Nation's food supply, under all conditions, is yet to be proved.

Export production technology and requisites: We have the research and technology to develop new agrisystems that will corrigent solutions to each of these illustrative problem areas and others. Furthermore, we can package these systems for export to:

Help balance our international payments.

Substitute commercially viable agrisystems for giveaways to poor countries which will bleed us white unless we find alternatives.

Put control over a critical portion of the world's supply firmly in the hands of the United States—the ultimate strategic weapon in world affairs is food.

Attached is an illustrative list of packagable, exportable agrisystems.

In this export field, I have partly blazed a trail during the last 17 years. I hope others will carry on.

The foregoing illustrate national needs in F. & A. They require a new generation of research and development—new sophisticated problem-solving methods with systems analyses procedures and development, interdisciplinary coordination, advanced computer application and related techniques. Such techniques were developed and proved successful in space exploration. These can be applied to national needs in F. & A. RANN has its arms around those techniques and could direct their application to "here and now" problems of F. & A. The need is to adapt and develop these problem-solving systems development techniques to F. & A. problems by solving F. & A. problems with them.

I respectfully urge this committee to reexamine whatever limitations there are on RANN which prevent it from helping to meet these national needs in F. & A. Since most of the research needed is already available, results could be demonstrated in 1976.

The fundamental question in F. & A. is not whether the United States or the world can produce enough food to meet respective needs. There can be an abundance of food, here and elsewhere, for as far down the road as we can see. Rather the fundamental question is can we produce and market food at retail prices which keep adequate diets within reach of 85 percent or more of the population. We are not doing it. We could.

A splendid piece of work was done recently by the House Agriculture Subcommittee on Department Operations. It concluded:

Will America allow a food shortage to surprise us? The answers are not easy but the price of inaction will be cruel.

Think about it Congress.

Think about it America.

Dan Morgan of the Washington Post did a splendid job of specificating the current problem in his piece in the Post day before yesterday.

What I am suggesting is the application of space proven problem-solving methods to apply the research we have to F. & A. needs.

The job that needs to be done by RANN is not a costly one nor a repetitive one. It would not lead to more Government—on the contrary, it is designed to make it possible for private business to fund and initiate new agrisystems to meet the needs.

The help of RANN is needed to develop a new system to tighten and accelerate the linkage between research and applications, which system could be funded and initiated by private enterprise.

NATIONAL SCIENCE FOUNDATION,
Washington, D.C., April 17, 1975.

Mr. GWYNN GARNETT,
President, Garnett, Inc.,
Culpepper, Va.

DEAR MR. GARNETT: This letter is in response to your preliminary proposal entitled "Strategy, Organization and Procedures for Dealing with Major Food and Agriculture Problems."

I regret to inform you that we have no program in the Division of Advanced Environmental Research and Technology that could accommodate the subject matter of your proposed request. No further processing of the preliminary proposal is planned.

Please understand that our decision in no way reflects adversely on the quality of your research or on the importance of the topic. It is simply a reflection of our desire to concentrate relatively limited resources on a few problem areas so that we can provide a sound scientific basis for their resolution.

Even though we are unable to proceed with this request, we would be pleased to consider others that you might wish to submit.

Sincerely,

LARRY W. TOMBAUGH,
Director, Division of Advanced Environmental Research and Technology.

COORDINATED AGRI-SYSTEMS

(COMPLETE PACKAGES)

Includes management, equipment, financing, equity participation and tie-in to technical support: Milk, eggs, beef, pork, sheep, fish, honey, rabbits, and turkeys.
Grain production: Wheat, rye, rice, sorghum and corn.
Pulses: Beans, soybeans, peanuts.
Fruits and vegetables.
Storage: Grains, vegetables (family, farm, interior and port storage).
Controlled environment.
Water: Supply, storage, irrigation, hydroponics.
Transport: Heavy duty, off road, lighter-than-air man-powered-wagons.

BIOGRAPHICAL SUMMARY OF GWYNN GARNETT

Education: Iowa State College of Agriculture and Mechanical Arts, 1929–33. B.S. degree: Agricultural Economics and Agricultural Engineering. Graduate work: 2 years, Agricultural Economics (part time).
Age: Born December 26, 1909, in Chicago, Ill.
Marital status: Married, 2 children, American citizens.

EXPERIENCE

1925–29: Operated an irrigated crop and livestock farm in Wyoming.
1934–37: Agricultural Economist for Iowa State Agricultural Experiment Station and the U.S. Department of Agriculture.
1937–42: Economist for Farm Credit Administration of Omaha.
1942–45: Military service—Infantry Company Commander, European Theater.
1954–50: Director of Food and Agriculture for West Germany under Military Government and U.S. High Commission for Germany after holding lesser positions.
1951–55: Director International Affairs—American Farm Bureau Federation. Principal architect for conceiving and drafting title 1, Public Law 480, which became the Food for Peace program.
1955–58: Administrator—Foreign Agricultural Service—USDA. Organized foreign market development program; supervised implementation of Public Law 480; expanded analytical work involving developing countries and projected the world's future demand for farm products. Received Distinguished Service Award, USDA.
1958–60: Pan American World Airways executive, member of a team engaged to negotiate and contract for financing and constructing intercontinental hotels in developing countries.
1959: Joined with others to form Garnett-Ross, a Maryland-based company engaged in breeding special-purpose seeds to produce forage crops.
1961–63: Formed and became president of the Business and Industry Development Company (BIDCO) to identify, supply, help finance and manage agribusinesses in developing countries, as private enterprises mostly in Africa.
1964– Formed Aikin Gona Ltd. as an agribusiness investment, development and management company in Nigeria. A subsidiary, the Nigerian Food Company, Ltd., was started up, at the same time, as a cattle and meat business. Cattle are fed out on contract for NFC, in the northern region, slaughtered there and the meat transported in company-owned and operated refrigerated rail cars for about 1,000 miles to Lagos where the quality meat is broken down and sold to stores, hotels, institutions and companies operating canteens. The company experienced great difficulty during the civil war. After the war, the company was reorganized and a FIAT subsidiary became involved with participating management.
1967–69: Agribusiness consultant on identifying profitable agribusiness opportunities, preparing the investment prospectus and performing the preoperaiton and development work to implement them:
Litton Industries, Benelux S.A.—Under contract with government of Greece to promote economic development. I prepared the financial projections, cash flows, estimated capital costs and developed the plans for startup and operation of a cattle and meat business and for a fruit and vegetable business.
National Industrial Conference Board.—Service to associates engaged in agribusiness; developed program for National Conference on World Hunger; developed a continuing agribusiness program for NJCB.

American Metal Climax.—Developed a program for the startup and management of an integrated agribusiness in Zambia to produce and market beef and crops.

John Deere.—Developed a program to startup and manage an integrated agribusiness in Iran to produce and dehydrate alfalfa and to produce grains, beans, and cattle on a large scale.

Private Investment Consortia.—Identified and developed agribusiness investment opportunities in the Caribbean and several African countries.

Government of Trinidad and Tobago.—Prepared an investment prospectus with plans for startup and management of a business to grow ingredients and manufacture cattle feed in Trinidad and a business to grow and air-market fresh fruits and vegetables.

U.S. Department of Agriculture, Washington, D.C.—Designed a private enterprise system to expand beef production in Europe that was profitable, replicatable, and had societal acceptance.

1970—Formed Garnett, Inc., to design, manage and supply Coordinated Beef Systems (CBS) in foreign countries. Designed, managed and partly own a CBS in the Canary Islands of Spain, Nigeria and Angola. Designed CBS for Iran, Italy and France.

1974—(Oct.): Commenced startup of a CBS Warrenton/Culpeper area of Virginia.

ADDENDUM

In 1958, Secretary of Agriculture, Ezra T. Benson, offered me the position of Assistant Secretary of Agriculture, which had previously been held by Dr. Earl Butz. I declined. Soon afterwards, Thomas Mann. Assistat Secretary of State, offered me the position of U.S. Special Trade Representative. This too, I declined in favor of my own business—to establish packaged agrisystems in poor countries—Africa.

After being "wrung-out" by the Civil War in Nigeria, I wrote a book entitled, "Start a Business in a Poor Country"—a "How-to" book.

Mr. GARNETT. I will summarize it. I have spent a lifetime in food and agriculture, in Government and out, in the United States and in 11 foreign countries, mostly in private business, mostly in my own business. At the present time, I am preoccupied with running a farm and producing beef out in Virginia.

Mr. TALCOTT. Are things looking better?

Mr. GARNETT. Well, just for a very short time. Whether I can get my cattle ready to go before the bottom drops out again is a question.

My experience grows out of a number of conversations that I have had with a high official of the National Science Foundation in RANN. After going over the problems that I thought deserved some consideration, he told me that the problems that I thought were national needs were beyond the terms of reference of RANN. I found this in many places.

So I would like here to point up what I think are national needs that should, in my judgment, fit into the terms of reference of RANN.

As we all know, food prices have moderated the inflationary pressures and other sectors of the economy for four decades.

Recently, we have learned that food prices are contributing a great deal to inflationary prices generally, and that was reaffirmed last week.

Retail prices for an adequate human diet are being pushed beyond the reach of an increasing share of the population and then the Congress is called on to provide food stamps and public assistance.

We need to increase food production—I am sorry to repeat this, because I know they are so well known, and yet I wanted to take a moment to establish a base—we need them for exports to balance our payments. The problem is not can we produce enough food; the problem specifically is can we produce and market food at retail prices

which will keep food prices within the reach of at least 85 percent of the population.

We are not able to do that now, and the reason I am here is that we have the research, we have the technology, to accomplish that. We need something extra which RANN can help us do.

Mr. BOLAND. Why don't you have the Department of Agriculture help you do this? Agriculture is in many aspects of research. On page 2 of your statement you say, "Efficient agrisystems and subsystems have already been developed for the production of sugar, milk, poultry, pork, and others. This is not always true for the marketing of these products." You apparently have some concern that we haven't had sufficient research in the marketing of particular products.

Mr. GARNETT. This is right. The point, Mr. Chairman, that I am really here to make is that in the space exploration program we developed a whole new line, a whole new technology of systems approach. We need to have a new systems approach in agriculture; we need to borrow those techniques from the space program and solve some food and agriculture problems by using those that have been developed and RANN has its arms around those problems.

Mr. BOLAND. I didn't hear you say why the Department of Agriculture should not be engaged in this kind of research?

Mr. GARNETT. I have been an employee of the Department of Agriculture, and I am very close to the research work that is related to these things that I discuss. I think they are doing a good job. I am not critical. I am just saying that the needs are so great that we need to have a new level of sophistication in research and demonstration.

I am not asking that there be new Government programs. There should be less but in order to get these new technologies of problem-solving methods into the hands of private business, there needs to be some help. RANN has that capacity to help us bring together very advanced computer technology, systems analyses, advanced computer applications, and this sort of thing that we normally don't have. I am not criticizing anybody. I am just saying the need is great; there needs to be an injection of a new level of R. & D. for a short period of time, just to get the new system started.

Mr. BOLAND. Your query to the National Science Foundation was in a proposal entitled, "Strategy, Organization and Procedures for Dealing with Major Food and Agriculture Problems." That proposal was considered, and not really rejected. I think they were understanding of what the proposal entailed. The NSF indicated, "Even though we are unable to proceed with this request, we would be pleased to consider others that you might wish to submit."

This is sort of a new submission—not this statement—but your argument with reference to RANN indicates that this is an area where RANN could get into rather than continuing to push the proposal that was considered by NSF.

Mr. GARNETT. What I sent was not a proposal. It was a talking paper, and then I went in and talked to one of the leaders there, and he said that their terms of reference just didn't cover the kind of work that I had proposed.

These savings can be made, and they could have an impact on the national economy amounting to billions of dollars.

Mr. BOLAND. And probably more specifically addressed to the RANN program, too?

Mr. GARNETT. Yes, sir.

Mr. BOLAND. The question which is raised in your statement here?

Mr. GARNETT. This is right. I am talking really about new types of problem-solving methods which I think it would be appropriate for them to polish up and then turn over to the agricultural experimental stations and private industry to carry on, and the job needs to be done by private business, not by government, but people in agriculture have been coming to the Congress for 30 years or 40 years looking for solutions to their problems, and now we have had a chop-off. I am in favor of that. But there needs to be some intermediary or some intermediate efforts to get it back and say this can be done by private enterprise as a profitable business. This is the kind of start we need.

Mr. TALCOTT. Mr. Chairman.

I don't know who you are or where you came from, or how you got to this committee, but I am impressed. I think what you are saying very astutely is that we should duplicate what we did in the space program. We developed a system that almost every other department is envious of and through the scientific discoveries we developed a system for problem-solving. If we could apply that to agriculture and transportation and public works and a lot of other things, we would be a lot better off.

Mr. GARNETT. This is exactly what I am saying.

Mr. TALCOTT. And the Department of Agriculture has done a lot of research but spasmodically.

Mr. GARNETT. I am not here to be critical, but there is a new level——

Mr. TALCOTT. Every department needs that, you know; every big thing in our country needs this, every venture in our country, agriculture, transportation, universities, all of them need this new system.

Mr. GARNETT. This is right. The way the system works now is that people dig deeper and deeper and deeper on smaller and smaller parts of the problem. I spend days of my time trying to pull little parts of it together, and I have had association with people in the space program, and I know that they have a system that we need in agriculture.

Mr. SHIPLEY. I would like to say to the gentleman, I happen to agree with you on this. I have to also agree with Mr. Talcott that everybody wants the system, but I think your area is important enough that we should have a priority with regard to it.

Mr. GARNETT. Thank you, sir.

Mr. SHIPLEY. I wouldn't be as complimentary about the Department of Agriculture and their research as you have. I think they have attempted to do a good job, but for various reasons, some Congress has created for them in research and development, they have not had a real systems approach to solving the problems we have.

Mr. GARNETT. You are hitting it right on the nose.

Mr. SHIPLEY. I don't know, frankly, what this committee can do. We certainly recognize the problem, and we will be glad to do anything we can.

Mr. GARNETT. Well, I will tell you that, since I find a sympathetic note, I have worked 17 years on trying to develop this into a systems approach. I get 5 minutes to talk to a committee or to an assistant secretary or to somebody else, and I can't deliver it in 5 minutes.

Mr. SHIPLEY. I realize that.

Mr. GARNETT. I don't mean that you did, but, for instance, in the proposal that I gave to RANN, that was in a chance to get down with people who didn't know anything about agriculture, but did know the systems, and work with the people that did know agriculture and then with guys like myself, who carry some water on both shoulders and try to work out some of the problems.

Mr. SHIPLEY. We understand that, and, as I said, I think some of us are sympathetic to it. I think we need it and eventually this is going to come about.

Mr. GARNETT. It is going to come about. Of those problems that I have laid out here, the systems that we now use are agriculture colleges and extension services, the agriculture media, agriculture suppliers, agriculture consultants, and corporate farms. This is the system that we use of linking research to application. Those will work in time. But it took 30 years to apply the system that was developed for poultry to pigs. There are a lot of other things we can develop systems, and we shouldn't have to wait 30 years. We can, so help me, squeeze $100 to $150 per head out of the production and marketing of beef. We shouldn't wait 10, 20, 30 years. It could be started in the early part of 1976.

Mr. SHIPLEY. I think the committee agrees with you. Like I say, we will do what we can.

Mr. GARNETT. The thing that disturbs me is when this high official said we don't have the authority or the terms of reference to deal with this kind of problem.

Mr. TALCOTT. He may be right. It may require a change in the law. The laws are very constrictive.

Mr. GARNETT. I was a lobbyist for 5 years with the American Farm Bureau, and I know this. They have to be written the way they are.

There needs to be a new level of leadership in agriculture, and it should get started pretty soon.

You gentlemen have been very receptive, more receptive and a better reception than I have had for years. I thank you.

Mr. SHIPLEY. We appreciate your coming. We really do.

Mr. BOLAND. We are delighted to have you. How far away is your town?

Mr. GARNETT. It is about 50 miles. My farm is on the Rappahannock.

Mr. BOLAND. You have some 200 acres there?

Mr. GARNETT. Yes.

Mr. BOLAND. How long have you had it?

Mr. GARNETT. I just bought it a year ago, and we are starting up there. What we are trying to do is develop a new system to get $100 to $150 per head out of producing and marketing beef, but I have to do it all alone and the time is going to run out on me.

Mr. BOLAND. That is why you are in good shape.

Mr. GARNETT. That is because I have to go out and do a lot of haymowing.

Mr. BOLAND. Well, we are delighted to have you. Thank you very much.

NSF Intergovernmental Science and Research Utilization

WITNESS

DELEGATE J. HUGH NICHOLS (MARYLAND), NATIONAL CONFERENCE OF STATE LEGISLATURES, CHAIRMAN OF THE COMMITTEE ON LEGISLATIVE INFORMATION NEEDS AND THE INFORMATION SERVICES SUBCOMMITTEE OF THE COMMITTEE ON SCIENCE AND TECHNOLOGY

Mr. Boland. We will now turn to Delegate J. Hugh Nichols of the State of Maryland, National Conference of State Legislatures, chairman, Committee on Legislative Information Needs. He appears with regard to the NSF intergovernmental science and utilization program.

We are very pleased to have you with us. We have heard from a number of legislators, incidentally, in this area. Not so much from the legislators themselves as from their staffs in this particular activity. The committee is concerned about it and we are delighted to have you here today to give us some information on it.

Mr. Nichols. Thank you, Mr. Chairman and committee members.

Since I know that you have heard about this program from several other sources, I have submitted about 11 pages of written testimony, there, along with some attachments and unless you desire me to do otherwise, I will leave that for the record and briefly summarize some of the major points and just take a few minutes of your time.

Mr. Boland. Thank you very much.

[The statement follows:]

Mr. Chairman, committee members, the following statement is submitted for your consideration as you review the appropriations request for the National Science Foundation, particularly funds requested for the support of intergovernmental programs through the Office of Intergovernmental Science and Research Utilization.

As the committee is aware, the intergovernmental science program is devoted to the support of projects to develop and strengthen the scientific and technological resources of State and local governments.

Since 1970 I have been a delegate to the Maryland General Assembly. Prior to my appointment and subsequent election to the house of delegates, I served in various capacities with the Maryland Howard County government. I am therefore well acquainted with the capabilities and resources of State and local government. As my professional training is in data systems and management, I am also aware of the expertise and technology that is needed to just keep abreast of the ever growing wealth of information being generated today in any given field.

State and local governments do not generally have the capacity nor the technical expertise to cope with the present and future issues they must face today; A concerted national effort must be undertaken to insure that they do.

As a member of the National Conference of State Legislatures' Committee on Science and Technology, and chairman of the newly formed Legislative Information Needs Committee, I am actively involved in promoting the institutionalization of mechanisms to enable State governments to cope with the complex science and technology issues of today. The National Conference of State Legislatures, the only nationwide organization representing State legislators and their staffs, is actively involved in developing programs to strengthen the overall capacities of State legislatures.

With this statement I am submitting supporting documents that further explain NCSL activities in this area.

Though the Congress and the past administration have passed on to State and local government the responsibility to develop and implement policy in such highly complex areas as environmental management, and air and water quality,

there is no effort except the intergovernmental science programs dedicated to strengthening State and local government to handle these delegated issues.

I, therefore, request that you consider any arguments on behalf on increased support for this program. Implicit in my arguments is the assumption that State governments, particularly State legislatures, need scientific and technological resources to effectively fulfill their roles in making State policy.

In addition to the new federalism initiatives of our National Government, due to the pressing wants of their constituents, coupled with the lack of Federal initiatives, the States have assumed leadership roles in such areas as energy development land use management.

As Members of Congress addressing these issues you can fully appreciate the need to have at your disposal knowledgeable, scientific, and technological expertise. Even with the extensive resources available through the congressional research service, Congress saw fit to establish the Office of Technology Assessment to provide its membership with the institutional capacity to deal with the long- and short-term policy management issues inherent in the formulation of legislation in these areas.

The States, however, given the responsibility of implementing your congressional actions do not have resources available such as CRS, nor anything near the policy analysis capabilities of OTA. Furthermore, the States have been almost totally left out of the Federal R. & D. planning process, which is responsible for the development of technologies necessary to institute air pollution monitoring and abatement systems, water quality management systems and the like are being planned and developed. This is despite the fact that the State land local governments are the ultimate users of these technologies.

These inadequacies of State government in science and technology related areas and the lack of knowledge of sophisticated technologies that are applicable to civilian needs have not gone unnoticed within the Federal Government. Quite the contrary, former President Nixon in his 1971 state of the Union address stated:

> The time has come for a new partnership between the Federal Government and State and localities—A partnership in which we entrust the States and localities with a larger share of the Nation's responsibilities, and in which we share our revenues with them so they can meet those responsibilities.
>
> So let us put the money where the needs are, and let us put the power to spend it where the people are.

In his 1972 address, President Nixon clearly outlined the goals that should be sought in order to develop an effective Federal-State partnership:

> (1) Systematic ways for communicating to the appropriate Federal agencies the priority needs of State and local governments, along with information concerning locally generated solutions to such problems. In this way, such information can be incorporated into the Federal research and development planning process.
>
> (2) Ways of assuring State and local governments adequate access to the technical resources of major Federal research and development centers, such as those which are concerned with transportation, the environment, and the development of new sources of energy.
>
> (3) Methods whereby the Federal Government can encourage the aggregation of State and local markets for certain products so that industries can give government purchasers the benefits of innovation and economies of scale.

In addition, the Federal Council on Science Technology Intergovernmental Science Relations Committee report, "Public technology—a tool for solving national problems," recommended a plan of action that could possibly accomplish the objectives outlined by the former President. The report recommended:

> Strengthening the capacity of State and local governments to utilize and, where appropriate, to develop their own scientific and technological knowledge.
>
> Improved mechanisms for the dissemination and use of scientific and technological knowledge at the State and local government level.
>
> Assisting State and local governments to establish mechanisms for the development and coordination of science and technology programs * * * State legislators and city councils should be assisted to develop similar staff capabilities of science advisory mechanisms.

Federal agencies conduct periodic reviews of R. & D. activity in consultation with State and local governments to determine the need for revisions of Federal programs, or possibilities for prototype testing and applications in areas related to State and local requirements and problems.

The Federal Government provide a regular flow of funds to State and local governments to conduct research and build institutional linkages which allow the research results to be utilized effectively.

The National Science Foundation intergovernmental science program was established to assist the Federal Government in meeting these avowed commitments. The Foundation, in cooperation with the Council of State Governments, commissioned a comprehensive study of State government needs for science and technology. The resulting report, "Power to the States," developed more specific recommendations. These included:

The President's Office of Science and Technology together with the Office of Management and Budget should strongly encourage and stimulate Federal agencies to approve grants to State legislatures for the assessment of technological opportunities to improve the delivery of services.

Professional staff for State legislative committees should be supported by the State legislatures and an experimental program to provide science and technology staff interface in legislative committees should be considered by the National Science Foundation.

The Federal Government is therefore not lacking the policy initiatives or guidelines to develop comprehensive science and technology assistance programs for State governments. What is lacking is the commitment of fiscal resources to implement them. If the moneys were provided in line with what seems to be the intent of the Federal government, the States as a whole may well have been on the road to strengthening their roles in the Federal-State partnership.

This, however, has not been the case. Though agencies, such as NASA, have in the past years specifically allocated funds to provide support for the transfer of sophisticated space technology to the civilian sector, their technology utilization budget in no way compares with the amount of expenditure on R. & D. (0.16 percent of their entire R. & D. budget). Furthermore, NASA's program focuses more on the development of marketing mechanisms to "push" space technology on the civilian sector rather than increasing the capacity of the States or local community to recognize the need for specific technologies and create the necessary "pull" to successfully accomplish utilization. Other Federal agencies' programs, such as EPA's and ERDA's are in similar situations. Even the NSF-RANN utilization program suffers from an overemphasis on "push" technology utilization techniques.

As stated in the FSCT report cited earlier, and is, for the most part, still true today:

Much of the new Federal R. & D. effort which depends on State and local governments as the ultimate consumers of the product is being conceived and managed as if the latter did not exist.

The relatively poor performance of many of these efforts (duly noted over the past year by several Congressmen) may not be the fault of the technology push oriented agencies but the lack of an intelligent and prepared "Technology Minded" user community in State and local government.

To date, the most visible program within the Federal Government that has as its major goal strengthening State and local government—the user communities—to deal with scientific and technology related problems, is the intergovernmental science program within the ISRU Office of the National Science Foundation. Though the goals of the ISP programs of the ISRU office are indeed in line with the comprehensive efforts called for in the presidential messages of 1971 and 1972 and the various reports cited, their budget allocation is in no way commensurate with their directive.

ISRU's budget for intergovernmental science programs set by the NSF has remained at $1 million from fiscal year 1971 through fiscal year 1975. Taking into account national inflationary conditions during this period, these moneys

have, in effect, been reduced to approximately a level $722,000 for fiscal year 1974.[1]

According to the NSF budget publication, ISRU has expended approximately $4.6 million on intergovernmental programs between 1971 and 1974 on a plethora of activities related to the overall objectives of strengthening the scientific and technological capacity of State and local governments. It is interesting to note that for fiscal year 1973 (the only figures I could obtain) the RANN research utilization program, primarily an information collection and dissemination activity was allocated an expenditure of $5.3 million, over five times that allocated to the intergovernmental science program.

As a further example of the intergovernmental science program's meager fiscal resources, consider the projects with State legislatures.

From 1970 to 1975 ISRU has funded nine proposals involving approximately $400,000, specifically devoted to strengthening State legislatures' capacity to deal with scientific and technological issues. The average expenditure on each project amounts to about $40,000, hardly enough fiscal support to subsidize professional staff functions that were meant to advise State decisionmakers in such highly technical areas as environmental management, energy regulation, et cetera.

Operating with such meager support, the success of ISRU intergovernmental science programs takes on heroic proportions. Consider again the success of their activities with State legislatures. The California and New York assemblies, recipients of the initial "seed money" grants to develop model science and technology staff functions for the legislatures, have picked up the tab for these operations and further strengthened their role in the legislative decisionmaking process. The Illinois legislative council, with a mere $7,000 in seed money from ISRU to initiate a science intern program, and with the services of an IGPA-NSF exchange person from the NSF education branch, has developed a science/technology unit staffed full time by a Ph. D. in bioengineering.

To coordinate their activities with State legislatures and further stimulate them to strengthen their capacity to deal with science and technology issues, ISRU awarded the NCSL science and technology committee sufficient funds to procure a professional staff. As a result that committee has been able to actively disseminate the experience of the New York, California, Kentucky, and other science and technology staff programs. Two years ago there were only three States with scientific staff functions. There are now 11 States experimenting with the establishment of scientific and technical resource mechanisms. Of these 11, 4 have not nor will be petitioning NSF for funds, as they are supporting their ventures from their own purses.

In addition to the NCSL project, ISRU provided the seed money to the CCSL[2] to study the possibility of developing a model committee staff project. CCSL was able to utilize this front-end money to obtain a grant of $2 million from the Robert Wood Johnson Foundation to launch a model health committee staffing project in eight selected States.

ISRU's success in building up States capacity is not limited to its activities with State legislatures. Notable and lasting accomplishments were achieved within executive and agency branches of State government. I have no intention of delineating these efforts. The accomplishments of ISRU's intergovernmental science programs in the legislative area point up ISRU's effectiveness well enough.

I mention these accomplishments of ISRU to establish that their efforts, their staff are effective. With proper and adequate funding levels for intergovernmental science programs ISRU could help develop within State governments an intelligent technology "user" community, and through grants promote and establish the necessary policy advisory mechanisms to assist State decisionmakers in promulgating policy on the highly complex issues now facing them.

The ISRU budget request as proposed for fiscal year 1976 is for a total of $3 million: $1 million for intergovernmental science activities, $2 million for the

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[1] Based on 27.8 CPI increase between 1971 and 1974 from the staff study prepared for use of the Subcommittee on Consumer Economics of the Government Economic Committee of the U.S. Congress.

[2] Citizens Conference on State Legislatures.

RDI program to be used primarily, as I understand, in utilization activities. Coupling the RDI allocation with the designated RANN utilization budget means utilization activities will receive far and above more support than the intergovernmental effort.

It is my contention that the intergovernmental science program of the ISRU office be strengthened and its budget for fiscal year 1976 be increased to a level commensurate with its goal.

Moneys should be allocated for support of programs designed to strengthen the role of State legislatures and related State functions. Monetary support should be at the least at a $5 million level, to include projects such as those delineated in table 1. The ISP program, of course, supports activities in other areas; city and local government, university/academic public service, Federal nonprofit laboratory efforts, and State executive branch and professional society programs, but I'll leave it to their constituencies to inform you of their needs and priorities.

I would like to call the committee's attention to the schedule of the allocation recommendations outlined in table 1. As specified, fiscal support for science and technology staff mechanisms is recommended on program rather than an annual basis. Since model resource mechanisms must be formulated, put into operation, then assessed and reviewed, ordinarily they should be supported for at least 3 years to accomplish their outlined objectives. Otherwise the grantee must submit a proposal every year to obtain the needed support.

The annual type of renewal pattern allows absolutely no type of planning on the part of the grantee, and could take as much as three to four man-months to submit, write, and review. My recommendation is therefore to fund projects on a program rather than an annual basis.

For increased accountability within the ISRU program it is further recommended that the ISP be delineated as a line budget item separate from any utilization activities.

As noted in the budget recommendations continued support of additional individual model S/T staff mechanisms is requested. I make specific note of this, since in the brief summary of the administration budget request for ISRU, it is specifically stated that new model projects should not be supported but rather studies be undertaken to evaluate the effectiveness of those models already funded. Since transferability is a questionable concept in so far as State institutional mechanisms are concerned, the administration's assertion that enough models have been developed is open to contention. Given the varying structures of Government in the States, the recommendation is made to increase funding for at least six more model S/T resource mechanisms. Adequate support for evaluative studies should of course remain a budget item.

The intergovernmental science program includes the support of State university projects aimed at developing technical service programs to serve State and local government. Since its inception, the NCSL Committee on Science and technology has been working with State universities and their respective national associations to promote the establishment of such programs. University moneys to carry on research and development activities come from a myriad of Federal Agencies, though universities depend on State appropriations. The weight of these Federal dollars has to some degree turned the university researcher toward solving of national problems and away from State concerns.

Along with the Federal research dollars that are being provided, mechanisms must be developed so that States can realize the results of this research, especially in areas of pressing national concern. Also, effective technical services units within the State universities can act as dissemination centers for Federal research and development. Continued and increased intergovernmental science program support for these State university programs is therefore recommended.

I would conclude this statement, Mr. Chairman and committee members, by noting that though the recommendations put forth request a significant boost in ISRU spending for intergovernmental science projects, the total amount is minuscule in comparison to our total Federal R. & D. Budget. In conclusion:

"If the capacity of State and local government to produce and evaluate scientific knowledge is indispensible to the solution of national problems then a Federal investment to that capacity is justified." (Public Technology, 1972.)

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TABLE 1

1. Support of 4 to 5 model legislative staff mechanisms; 3-year programs, $150,000 per program	$750,000
2. Support of at least 6 program management projects with the budgetary operations of State government; 3 in the legislative appropriations operations; 3 in state budget offices—2-year programs, $150,000 per program	900,000
3. Support of 2 to 3 model technology assessment functions within the legislative branch; 3-year programs, $200,000 per program	600,000
4. Support of 2 to 4 projects with State agencies to give assistance in establishing effective enforcement/monitoring programs—subdefining their present and future technological needs and in vested areas of endeavor; energy facility siting, energy conservation tactics, land management, auto emission monitoring: $120,000 per program	480,000
5. Support of 1 to 2 interstate or regional science and technology referral or clearinghouse projects—3-year programs, $250,000 per program	500,000
6. Support for the establishment of 3 to 4 model S/T linkages between state universities and specific state branches of government—2-year programs, $120,000 per program	480,000
7. Support to the National Conference of State Legislatures and the Council of State Governments to establish technology assessment functions—3-year programs, $300,000	300,000
8. Support for a program to involve state decisionmakers in the R. & D. planning process of a specific Fedreal agency program—2-year program, $200,000	200,000
9. Support of a national S/T clearinghouse-referral center for State Government—3-year program, $500,000	500,000
10. Support for 2 to 4 projects to aid State policymakers, legislators, and executive branch personnel in establishing policy to deal with major technology related issues, in such areas as: power facility siting, energy usage regulations, agriculture and food production, hazardous material transportation, and occupational safety—1-year programs, $100,000 per program	400,000
Total	5,110,000

THE NATIONAL CONFERENCE OF STATE LEGISLATURE

DEVELOPING SCIENCE AND TECHNICAL RESOURCES FOR STATE LEGISLATURES

In 1970 the National Legislative Conference, under the leadership of Senator William S. James and Representative Thomas J. Anderson, created the Committee on Science and Technology to assist State legislators in developing scientific and technical resources.

Upon receiving a grant from the National Science Foundation Intergovernmental Science and Research Utilization Office in July 1973, the committee procured the services of a full-time staff, and initiated a comprehensive effort to strengthen the scientific and technical resources available to state legislatures.

The program's primary aims are:

To create an atmosphere among State legislators that will be conducive to implementing policy changes in the methods of procuring scientific and technical information/advice;

To stimulate and strengthen the relationship between State legislatures and existing available resources of scientific and technical expertise;

To review and disseminate pertinent technical and scientific information that would be of special interest to State legislative bodies.

Over the past year the project staff, in coordination with the committee and its chairman, has undertaken several projects to meet these objectives. For example, a nationwide survey of the scientific and technical resources utilized by State legislatures has been completed, and will be published early in 1975. This survey identified State legislatures that have already taken leadership roles in developing scientific/technical resources to meet their needs. These efforts have been and will continue to be studied, publicized, and relayed to those States interested in utilizing this information.

A major publication, Meeting the Challenge, based on existing legislative science and technical staff resources, is planned for publication in January 1975.

To expose legislators to existing technologies and resources that could have an impact on public policy, a technology-oriented exhibit was sponsored at the 1974 National Legislative Conference annual meeting. Over 30 exhibitors from Federal agencies, universities, and industry participated.

In addition to planning the workshop, States' Role in Radioactive Material Management, the project's staff has assisted the National Legislative Conference training program in planning and conducting workshops on increased coal utilization and mass transportation. In May the committee sponsored a workshop in cooperation with the Council of State Governments which focused on the issues of Federal/State technology transfer. It achieved the overall intent of informing the 20 Federal agencies represented about the National Legislative Conference, and laying the foundation for future activities. This workshop and a subsequent one, focusing on legislative access to technical information services, have stimulated a keen interest in the development of an interstate information system utilizing existing Federal facilities.

Since Federal agencies and research and development centers are by and large the primary depositories of our Nation's technological expertise and knowledge, a comprehensive effort was directed at opening up these resources to State legislatures. By acting as an intermediary, the committee staff has been effective in opening communications between legislators and Federal resources, and informing the respective Federal agencies of legislative information needs.

During 1975 the project's activities are to be centered on three major activity areas:

An indepth assessment of S/T staff operations, in order to develop recommendations and necessary background information to assist State legislatures in establishing in-house S/T staff operations;

Initiation of a central clearinghouse effort to disseminate pertinent scientific and technical information to State legislatures;

Comprehensive survey of university-based technical services programs for State government.

Policy Recommendations Relating to the Development of More Effective Means of Utilizing Our Nation's Scientific and Technological Resources To Meet the Needs of State Government

Adopted by the National Legislative Conference, August 1974

In order to facilitate the transfer of technology from the Federal Government to the State governments, the Science and Technology Committee of the National Legislative Conference makes the following recommendations:

That the President, the Director of the Office of Management and Budget, the Speaker and majority leaders of the U.S. Congress conduct hearings on how well State interests and concerns are reflected in Federal research and development program design and the formulation of national science policy.

That the Federal Government implement the recommendations set forth in "Action Now," the report of the National Action Conference on Intergovernmental Science and Technology Policy, and the President's message to Congress on science and technology of March 16, 1972.

That the President establish a formal mechanism with representatives from State legislatures and executive offices in order that Federal and national science policy adequately reflect State interests. Also, that representatives of State legislatures be included in key Federal R. & D. advisory groups, including the National Science Board.

That the Federal Government, working with the established intergovernmental bodies and associations representing State government policymakers, establish an agenda of critical issues and problems facing our States that can be used in the design of Federal R. & D. programs.

That Congress enact legislation that would establish a technology assistance program to aid State governments.

That each Federal agency involved in research and development or regulatory program implementation establish viable and effective technology transfer programs to make the results of these efforts available to State governments and that a central interagency council be established as a focal point for information on these programs.

That the Office of Management and Budget allocate funds to the Federal laboratories and agencies so that they may utilize their resources for scientific and technical applications in State governments.

And, it is further recommended that the several States—

Take effective action to develop science and technology advisory mechanisms within both the legislative and executive structures; and

Take on the responsibility of communicating their specific needs for scientific and technical assistance to the appropriate Federal agencies in order to facilitate the development of effective national R. & D. program.

Mr. NICHOLS. I want to thank you for the opportunity of presenting views on behalf of really two committees of the National Conference of State Legislatures: The Committee on Legislative Information Needs, of which I am chairman, and the Committee on Science and Technology, of which I am a member.

These committees are both, of course, concerned with the funding of the intergovernmental science program of the National Science Foundation which is a part of the research applied to national needs program that I have heard discussed this morning.

We believe that the intergovernmental science program and especially the State legislature projects are really fulfilling a national need.

In addition to my role with the NCSL, I am a member of the Appropriations Committee and chairman of the Subcommittee on State Services for Maryland which covers about one-half of the Maryland budget. Therefore, I sympathize with some of the problems I have heard you express and also realize the difficulty I will have in convincing you of some of the things that we need to have.

My professional background also happens to be in automated information systems, information and management consulting and I earn most of my living with Ocean Data Systems in Rockville, Maryland. As I am sure you are aware, the National Conference of State Legislatures is the only nationwide organization of State legislators and their staff. That is as of last January when all of the former competing organizations consolidated and we now have a relatively united front in terms of the State legislatures themselves.

I know that in the Federal programs you have passed you are also aware in most instances that the States have been relatively willing recipients of increased responsibilities under Federal programs. The environmental management programs, the air and water quality program and, of course, many others, and I think you are also aware of the actions we are taking in land use management and energy development and other scientific and technically oriented subjects.

I think that we are the willing recipient of these programs and responsibilities because we think a lot of them can be effectively performed at the State level and administered locally. I think the Congress has recognized this in giving us a great deal more responsibility at the State level.

That creates a special need for us in State legislatures and I am sure you are aware of it. The Congress, as you know, has available to it the Congressional Research Service, the recently created Office of Technology Assessment and these are supporting services that I am sure that you need.

We at the State level are still grappling for the best mechanism to meet some of the scientific technical and general information support needs that we needs to fulfill our responsibilities.

I might note that a lot of the federally sponsored science and technology is being tossed around under various technology utilization and research utilization programs. We, of course, are looking for some mechanisms to use it effectively at the state level. Without those mechanisms it is of little value to us.

Now, lets get to the specific program. The National Science Foundation, the intergovernment science program is, to the best of my knowledge, the only Federal program dedicated to helping us in State legislatures work our way through the maze of the Federal bureaucracy. It is dedicated to helping us exchange information among the States of vital scientific, technical and general information and it is dedicated to assisting us in developing, testing and evaluating the best mechanisms for training organizations and our staffs for meeting these increased responsibilities.

I think it is an important program; that it should be continued and expanded.

The $1 million per year level under which it has existed for the past 4-years has been effectively reduced by inflation as I am sure you know, to something less than three quarters of a million dollars.

The current program in spite of these limitations however has had some astounding successes. Just 2 years ago there were only two States, New York and California, that had any real scientific staff function. Today there are 11 or more such States.

Projects have been funded in California, in New York, Kentucky, Illinois, Massachusetts, Pennsylvania, and at the national and the regional level through the National Conference of State Legislatures and the Citizens Conference on State Legislatures.

I might note that other States including my own State of Maryland have been stimulated by some of this activity to fund their own internal programs to meet these objectives without assistance from the National Science Foundation.

I hope that the program will be expanded to include more interaction with the academic community in those States who are interested and I believe that this is a natural for the National Science Foundation because of its close association over the years in the network of university research projects that they have supported.

Attached to the testimony that I have given to you, as page 11 is the only part of that testimony that I will directly call to your attention. The table sets forth a series of multiyear projects that add up to about $5.1 million. I think that this is one way of structuring an appropriation to the intergovernmental science program and you note that it is laid out in program form rather than simply an annual appropriation form.

These programs will provide material assistance to the States and to the organizations of State legislators in fulfilling their functions.

I would ask you to review those quickly rather than me going over them and giving you details on each one of them.

If you have any questions on them, I would be pleased to discuss in detail what is meant by some of those particular programs. I will hold that until I finish. Those programs represent a significant boost in previous years spending for this particular program. I think that the increased spending is fully justified and warranted. It is still a

miniscule amount in comparison to the total Federal R. & D. budget and, of course, is still within the authorized line item amount.

I sincerely hope, among other things, that you will retain this program as a line item in the budget as an indication of your mandate for its use for that purpose within the RANN program.

I thank you again.

Mr. BOLAND. The intergovernmental science and research utilization staffs that have been established in the 11 States, what sort of staff do they have? I understand this is an activity which really is used for the purpose of providing knowledge, expertise, and information to the legislatures themselves. That is the purpose of it.

Mr. NICHOLS. That is the purpose and the role that the intergovernmental science program of NSF play in providing assistance to set up the staffs and get them into operation. Science and technology advisory groups have been formed.

They have been formed in California and in New York and they conduct conferences on special subjects of scientific interests.

In Maryland during the past session, through my efforts with the National Science Foundation and its cooperation, they have brought the solar energy laboratory to Annapolis and kept it for 1 week as evidence of the availability of technology and what could be done in the fields of solar energy for heating and cooling purposes.

In most of the States where the National Science Foundation has funded these experimental projects, the States, themselves, have picked up part of the cost and have continued the programs. We feel there is a need for continuous evaluation of some of those projects, however, to be sure they are performing as well as they were intended and, of course, there are other kinds of projects that we think could be performed as well. As a matter of fact, I think the first item in table 1 dealt with four to five model legislative staff mechanisms and some of those mechanisms are where you set up an internal staff within the legislature, itself, supported and totally responsible to the legislature to provide the scientific and technical information support. Others are where you go to a university and I believe, one, the National Science Foundation has been involved with is Auburn University and the Alabama Legislature in which they have established a support office.

Another way is when you go to an independent agency of government—in Maryland we have gone to the Maryland Academy of Sciences—to provide us assistance. Of course, all of these different ways of providing support need to be evaluated and situations are different in different States. What works well in one State might not work well in another State.

Of course, we also need to look, as I am sure the Congress has, at the best methods of using the scientific support staff that we have in the executive branch of State government. We certainly don't want to duplicate any of those within our own branch, if we can secure the factual information we need directly from the executive branch.

Mr. TALCOTT. Doesn't the State of Maryland appropriate any money for research on these various things? Are you suggesting the Federal Government alone spend money for them?

Mr. NICHOLS. We appropriate a great deal of money on some of those things, yes. I think you have referred to some of the specific projects included in the table 1. We have a Power Plant Siting Act in Mary-

land and we have a surcharge on all gas and electric bills to finance research in those programs.

The real purpose of the intergovernmental science program, however, in my opinion, is not to finance the research, itself, but to finance the utilization of that research, to train some legislators, and, of course, our staffs to the ways that they can best use the research already being performed at the national level, not really to initiate programs of research in powerplant siting. We have that already.

Mr. TALCOTT. All of the Federal agencies that do research and development, they make the results of their research and development available to the public——

Mr. NICHOLS. Yes, sir.

Mr. TALCOTT. To States, to private industry and all. It is just a matter of your hiring somebody to fish it out.

Mr. NICHOLS. I agree. That is one of the things that the National Conference of State Legislatures and my committee in particular was very concerned with.

You will note other items where we were hopeful we might get some support from this office of the National Science Foundation to support national and regional scientific and technical clearinghouses. We in the particular legislatures sort of need a single point of contact for information rather than seeking out 50 or more Federal agencies that may have related information and we are hopeful that we will be able to develop that single point of contact through the national conference and through some of our committees.

Mr. TALCOTT. I have no further questions.

Mr. BOLAND. If there are no further questions, we thank you for being here. We are glad to have the State legislatures come in and give us the benefit of their views.

The committee stands adjourned.

WEDNESDAY, MAY 14, 1975.

DEVELOPMENT OF HOUSING AND URBAN DEVELOPMENT

WITNESS

HON. ARTHUR HOLLAND, MAYOR OF TRENTON, N.J., REPRESENTING THE NATIONAL LEAGUE OF CITIES AND THE U.S. CONFERENCE OF MAYORS

Mr. BOLAND. The committee will come to order.

We welcome the myor of Trenton, N.J., Arthur Holland representing the National League of Cities and the U.S. Conference of Mayors.

Mayor HOLLAND. We have submitted a statement.

Mr. BOLAND. You have a statement from the National League of Cities and the U.S. Conference of Mayors on HUD appropriations. You also submitted a statement on behalf of Picot B. Floyd, city manager of Clearwater. We will include those in the record after your presentation.

Mayor HOLLAND. Mr. Chairman and members of the committee, speaking now not only representing the league and the conference, but in a way as a mayor of the city that has been very much involved in the program to which I am going to make reference, our experience to date with the community development program has been mixed. Like many other aging industrial cities of moderate size in the Northeast United States, Trenton has benefited from the increased flexibility and authority over allocation of Federal funds which has come with the 1974 Housing and Community Development Act.

I was one of those who lobbied hard for the Community Development and Housing Act. I must say I am pleased as one mayor who is working with the block grant funding. It has given us the kind of discretion and flexibility that we felt we needed.

The citizen participation component of the program is noteworthy and in Trenton, is being developed into an ongoing community involvement with an evolving plan for city development rather than simply a one-shot preparation of a static plan for 1 year's activities.

However, a number of aspects of community development are proving to be problematic. Some of these problems are related to the implementation of a program which differs significantly from its programatic predecessors. Other problems reveal possible conceptual or legislative deficiencies in the Housing and Community Development Act itself. Both categories of problems will require timely and appropriate corrective measures if the program is to succeed.

Most HUD field offices around the Nation were reported to have suspended processing of all discretionary grant applications during the months of April due to the deluge of community development block grant applications which they received. Over 60 percent of the 1,240 block grant applications appeared at the field offices during the 2 weeks prior to the April 15 deadline. This administrative logjam is the type of procedural inefficiency which was created primarily by the shortness of time for planning and lack of experience with the program which characterized local government's efforts to prepare the first-year applications. Trenton, for example, held 16 neighborhood planning sessions, 2 public hearings conducted by the city council and the administration having conducted the neighborhood hearings, and extensive discussions involving citizens, representatives of the administration, and city council members between November 13, 1974, when the community development regulations were published and the end of February 1975, when the city's application was submitted to the area clearinghouses for review.

Trenton's experience was no doubt similar to that of many other units of local government which found the amount of time available for preparation of a plan to be barely sufficient to do justice to the new local responsibility inherent in the community development program. This problem is clearly related to the introduction of a different system and can be expected to be alleviated by better planning on the part of both local governments and HUD field offices in the second year of community development.

Although prolonged inefficient administration of the program would seriously hamper its success, the levels of funding pose problems of a more critical nature. The scope of the community development fund-

ing crisis became most evident with the release of the HUD memorandum of March 19 which notified all field offices that no discretionary grants would be approved from metropolitan balances in fiscal year 1975. The immediate reason for this was that more than three times the number of urban counties applied and qualified for entitlement status than had been projected. Since many of these urban counties have been granted extensions to May 15 to send in their applications, the total impact that this will have on the amount of funding for the metropolitan areas is apparently not known, but recent estimates place this overrun at $19 million. If these funds are provided from the national discretionary fund controlled by the HUD Secretary to correct inequities in the allocation provisions of the act, less than 60 percent of the fund will remain. The implications of such a depletion in the discretionary funds are as obvious as they are far-reaching.

Since the urban counties which qualify this year for the first time for entitlement grants will be phased in to their full entitlement amounts over a 3-year period—in accordance with the act—they will pose a progressively greater drain on the available funds in each of the next 2 years. Additionally, urban counties which did not seek entitlement status this year could join the program in the future and further escalate entitlement demands.

Although the implications of the now well-known urban counties problem are most critical to the nonentitlement cities and counties, Trenton has been caught in a funding crisis as well. In 1974 the city received approximately $6 million through the neighborhood development, urban renewal, model cities, open space, code enforcement, and water and sewer programs, all of which were superceded by the Housing and Community Development Act of 1974. By contrast, the city's entitlement and hold harmless amount for fiscal year 1975 totals $5,097,000. The hold harmless provision phases out over 3 years with the resultant total funding amount for fiscal 1978 of $3,375,000. This entitlement further declines by fiscal 1980 to $1,985,000. This decrease in funding is in contrast to the increase in fixed and administrative costs which the city will experience during the same time period. It is obvious that such a situation would result in a massive cutback of city services and a virtual elimination of physical development projects in order to operate within the constraints of such projected funding levels.

The current crisis involving the metropolitan balances would be relieved somewhat by the Senate and administration approval of the amendment to the second fiscal 1975 supplemental appropriation bill which was introduced by Chairman Boland. This amendment, in providing HUD with an additional 54.6 million, would provide the anticipated and much-needed funds specifically for nonentitlement communities. However, since the extra appropriation would not go to hold harmless claims, the national discretionary fund would still be depleted because of the demand by the urban counties.

Mr. BOLAND. What is the solution to this? Would you be in favor of an amendment which would preserve 5 percent of the 80 percent reserved for metropolitan areas for the SMSA balance?

Mayor HOLLAND. We want——

Mr. BOLAND. You want as much money as you can get, obviously.

Mayor HOLLAND. Well, the full appropriation.

Mr. BOLAND. You recognize the fact that the community development funds are split, 80 percent for metropolitan areas and 20 percent for nonmetropolitan areas.

Mayor HOLLAND. Right.

Mr. BOLAND. Would you favor an amendment to the Housing and Community Development Act of 1974 which would provide at least 5 percent for the SMSA balance? Would you favor that sort of amendment so that some of these communities—those that are being left out as a result of the fact that a number of urban counties qualified and, of course, have a priority under the 80 percent—get a piece of the action?

Mayor HOLLAND. Do you mean at the expense of the cities, the metropolitan areas?

Mr. BOLAND. You recognize that the funding under the Community Development Act is distributed on a priority basis. Eighty percent of the community development funds are reserved for metropolitan areas and 20 percent for nonmetropolitan areas. There has been some indication by some Members that of the 80 percent reserved for the metropolitan areas, that 5 percent of that ought to be reserved for the SMSA balance. This would guarantee that there would be some funding in that area. Would you favor that?

Mayor HOLLAND. Which means, then, automatically there would be a 5-percent cut from the 80 percent.

Mr. BOLAND. There would be a 5-percent cut in the metropolitan cities.

Mayor HOLLAND. Well, obviously as I have indicated, I think we need more, not less for the metropolitan areas.

Mr. BOLAND. Everyone needs more, not less, you know.

As mayor of the city of Trenton, you are receiving, as I understand it, in fiscal 1975, about $5 million under the community development program, right?

Mayor HOLLAND. $5,097,000.

Mr. BOLAND. And the next year you will receive a little less than $5 million and then it goes down as you have indicated. That presents a problem to you but, I presume, one of the thrusts of the Community Development Act was that some of the programs that had been funded were not going to be funded into perpetuity.

Mayor HOLLAND. I lobbied for that. I knew what would happen because I believe in the flexibility approach.

Mr. BOLAND. As I understand the thrust of your statement up to this point it is that the SMSA balance does not have enough money in it to take care of the needs of some of the smaller communities.

Mayor HOLLAND. I had not finished my statement.

I tried to make clear that we need the money for the metropolitan areas. I would say that if there were nonmetropolitan municipalities who were not getting any entitlement whose needs proportionately were as great as the needs of the metropolitan area, I would say, I would go for that.

Mr. BOLAND. In order to provide for those communities included in the SMSA balance there would have to be an amendment to the law.

This House approved the $54 million amendment that I offered to the Second Supplemental Appropriation bill to provide money for

the SMSA balance but I do not believe we are going to be able to do that in an appropriation bill in the years to come. I think there has to be an amendment to the law.

Mayor HOLLAND. I should qualify my statement by saying that is a spontaneous personal opinion. I don't know that I would be supported by the league or the conference. It seems in the interest of fairness that that would be justified.

Mr. BOLAND. Fine.

Mayor HOLLAND. Accordingly Congress should further relieve the discretionary fund crisis by authorizing the full $2.95 billion for fiscal 1976.

Two months ago, HUD projected that a fiscal 1976 funding level of $2.5 billion would make $74 million available in the metropolitan balances fund. Now, with the response weighed from the urban counties for entitlement status, HUD estimates that an additional $200 million for community development block grants will yield only $34 million in discretionary funds. In the face of such a convincing need for additional funds, it is critical that the maximum amount be authorized. Any lesser action would undermine the potential for success of this program which remains the hope of Trenton and cities like Trenton across the Nation.

Let me direct a few comments to you on the subject of the HUD comprehensive planning assistance program. Beginning in 1972, the comprehensive planning assistance program (701) became available for management improvement activities.

I would like to say that that is one of the most helpful developments.

Mr. BOLAND. Let me ask you, what did the 701 program provide for planning for the city of Trenton last year?

Mayor HOLLAND. Well, I go into some examples here.

Mr. BOLAND. What was the total amount of money that was provided to the city of Trenton under the 701 program last year?

Mayor HOLLAND. I do not know off hand. $260,000 over 3 years.

Mr. BOLAND. Would you be willing to take any money out of your community development funds? Would you be willing to take any of the money that comes to you under community development to provide for 701 planning.

Mayor HOLLAND. Again it would be a last resort. I have every day coming into the mayor's office someone coming from the community. It could be the Boy Scouts wanting us to fund something.

Mr. BOLAND. You have to make those hard decisions. We recognize that, but Congress has to make hard decisions on spending, too.

Mayor HOLLAND. I don't know where we could take it from. We are trying to keep child care centers alive. I would say no. If I had to make decisions like that, I would not take money for 701.

Mr. TALCOTT. Then it is not very important to you.

Mayor HOLLAND. It is most important, as I will point out.

Mr. TALCOTT. Boy Scouts and day care centers come before community planning?

Mayor HOLLAND. No.

I am saying I would prefer to use money for that purpose ahead of the management planning.

Mr. TALCOTT. 701 is comprehensive planning. It is not supposed to be used for management techniques alone.

Mayor HOLLAND. Certainly it is. That's what we used it for.

Mr. BOLAND. As a matter of fact, that is one of the most important facets of it. But if you received $260,000 over the past 3 years that would be a little better than $80,000-plus each year. If you are receiving $5 million in 1975 and almost $5 million in 1976 under the community development program, if you think that the 701 program is so importtant, planning and management is so important for Trenton, I just cannot understand why you could not take some $80,000 out of the community development funds and provide for that particular planning.

Mayor HOLLAND. I would prefer to use what experience we have gained through 701.

Mr. BOLAND. You would prefer to get as much money as you possibly can. We can understand that. It is easy to understand it, too, insofar as the mayor of a city is concerned.

As I say, you sit in the hot seat. It is one of the most difficult jobs in America, being the mayor of any city. We recognize that, too. I think there also has to be a recognition that there is a limit to which the Government can provide funds for particular activities around the Nation.

But go on, anyhow. We are glad to get your views.

Mayor HOLLAND. My point is that we have benefited by 701 management planning. I would hope to use what in-house capacity we have developed as a result of that to continue on our own with management planning, rather than cut the funds.

Mr. BOLAND. When will you be able to continue on your own?

Mayor HOLLAND. Theoretically never in that you always try to keep up. This very room has that kind of atmosphere.

There has been too little money invested R. & D. at the local level, I believe, and also companion to that in evaluation.

With the study and application to the public sector of many new management techniques which had formerly been exclusively applied to business, it was an extremely opportune time for cities to receive financial assistance in implementing these new concepts. Cities were then able to develop systems to integrate their physical and social planning with their management processes, and to evaluate their various services for implementing and planning better ways to manage these services. Each of the past 3 years has seen a slightly different policy emphasis from the regional and national level regarding 701, but the overall emphasis on management improvement was still there. In addition to some of the traditional comprehensive planning, cities such as Trenton began to use much more of their funds to begin projects which tested and implemented program budgeting systems, developed project monitoring systems, improved financial systems, designed management systems for block grant programs with greater local control and developed computerized information systems.

It is my understanding that what has been proposed for comprehensive planning assistance for fiscal year 1975–76 is the complete cutoff of these funds with the reasoning that the same activities could be undertaken through community development as have been financed through 701. This is not necessarily true, and indeed, such a loss of funds would be a serious loss to cities which have over the past 3 years been able to develop and refine improved management systems.

For example, in Trenton, of the $260,000 which we have received over 3 years of funding, only 10 percent has been used for community-development related activities, and half of that was to study and improve the management structure in preparation for block grant funding. Trenton's other projects funded by 701 have included such items as the study of the overall management of our police division by the International Association of Chiefs of Police, the computerized study of the location of fire houses by the Rand Institute.

We are about to go in before the council in a week and recommend two firehouses less as a result of that research.

We have found our response time will not be hampered by it. The scheduling and management improvement of our data processing operation. We have used our comprehensive planning assistance funds to "startup" staff in the data processing function to improve its management systems, and to provide analytical staff to develop in-house expertise in productivity improvement for dealing with normal city services. These are types of undertakings which cities cannot afford to do on their own budgets. They are also the kinds of projects which cannot be founded by community development block grants, especially in the sense that they are not eligible activities, but also that there are not sufficient funds in the block grant to do the necessary and allowable community development activities. Management improvement is essential to the efficient and effective running of community block grant programs, as well as to the efficient overall operation of cities, especially in times when financing problems are so great. To cut off the one source which cities have had to fund management improvement, would be a cruel blow indeed in this time when increased productivity is so important.

It is very difficult to convince the people and the councils that you need money for R. & D. and experimentation of any kind.

Mr. TALCOTT. You said here directly that you do comprehensive planning. As I understand comprehensive planning, it is for large scale long-range comprehensive planning. That was the purpose. I understand, as the chairman has said, that OMB has broadened the use of it for some other things. But to use it for improving in-house expertise and productivity improvement for normal city services was not the original intent of compreshensive planning. That is what many cities are doing, using it for normal city functions.

Those are the kind of functions that I think can be funded out of the block grant program.

Mayor HOLLAND. My understanding is just the opposite. 701 developed, of course, the need for——

Mr. TALCOTT. What does comprehensive mean?

Mayor HOLLAND. Land use primarily.

Mr. BOLAND. It means more than that.

Mr. TALCOTT. But that was the original meaning.

Mayor HOLLAND. In the housing field, I am concerned about the delay we are experiencing in the implementation of the section 8 provision of the 1974 Housing and Community Development Act. It has taken the Department of Housing and Urban Development 9 months to write, circulate, rewrite regulations for the section 8 program. In particular, the regulations which relate to the operation of State housing finance agencies have been subject to extensive discussions.

Although I am aware of the difficulty of putting a new Federal program into action, we must be dismayed that the section 8 program has yet to produce a single new living unit.

In seeking the $662 million in contract authority for the section 8 leasing program in the fiscal year beginning July 1, HUD is maintaining a posture first struck by former President Nixon in January 1973; announcing the subsidized housing moratorium, Nixon predicted 150,000 units of section 23 leased housing would be produced during the then coming year. In fact, fewer than 10,000 such units were actually ever put under reservation over the 2 years between that date and now. During fiscal year 1975 HUD's estimates for the number of units to be produced under section 8 has dropped from 200,000 down to virtually zero. As I understand it now, HUD Secretary Carla A. Hills predicts that there will be reservations made for 40,000 units of section 8 housing, to be composed of 25,000 reservations for existing units and 15,000 for newly constructed or substantially rehabilitated units. This is a bleak picture for cities who desperately need new housing construction. In Trenton, like many older Eastern cities, the majority of our housing stock is more than 50 years old. Many of our existing housing units are not suitable for rehabilitation. In fact, many of these units should be demolished. Currently, we are operating with a near zero vacancy rate, and therefore, we must have new construction to ease our housing dilemma.

I am concerned over news reports of Secretary Carla A. Hills' testimony regarding the appropriations request for fiscal 1976 which should produce approximately 400,000 units of housing. It is my understanding that HUD now expects that only 90,000 of these units will actually ever be put under contract and that a substantial majority of these reservations are expected to go for existing units. With the tremendous housing demand that these cities such as Trenton can demonstrate, and the abnormally high unemployment in the construction trades, it seems that Congress should insist on a higher performance rate from the Department of Housing and Urban Development.

Apparently, there was considerable delay in informing the HUD area offices their allocation of section 8 units. As a result, many cities, such as Trenton, did not receive an indication of how many section 8 units they might receive before they were obliged to file their community development applications, including housing assistance plans. Now that we have received an informal indication from HUD of the number of section 8 units we may receive during our first community development year, we find this allocation is far below our immediate needs. Our housing assistance plan shows a need for 791 units to fill our obligations to build housing on existing, vacant urban renewal sites. However, we can only expect to receive 200 units during this fiscal year.

Mr. BOLAND. That is the same story all over America with respect to this program.

Mayor HOLLAND. I know. Well, it is a sad story.

From our observation, it is unlikely that private developers will rush to utilize the section 8 program in the Eastern urban centers. There are simply too many financial obstacles for the entrepreneurs. On the other hand, the State housing finance agencies will not have to contend

with these disadvantages—namely, private developers having to use a 20-year mortgage period versus the HFA's ability to use 40-year mortgage period and the high cost of private financing which the developers must bear. Consequently, we believe that great emphasis should be placed on utilizing the capabilities of the existing State housing finance agencies for production of section 8 units.

Mr. BOLAND. I would agree with that. I think you make a good point there.

Mayor HOLLAND. When the 312 program was dead under moratorium we went to the State of New Jersey and they substituted.

Mr. BOLAND. All States don't have a top flight new housing agency. I take it you have one in New Jersey. We have one in Massachusetts, I know.

Mayor HOLLAND. That is right.

The New Jersey Housing Finance Agency has had extensive experience in the housing field having built some $407 million worth of publicly assisted housing.

The State agencies are in closer contact with the municipalities and are in a better position to be involved with the building process. The HFAs offer the Federal Government a distinct advantage in a project which may in future years default on its mortgage, because the project comes back to the ownership of the State agency and does not become a burden on the Federal Government.

Here I am, the first witness to suggest some help for the Federal Government.

Mr. TALCOTT. You are a rare bird.

Mayor HOLLAND. We would suggest that the section 8 set asides for the housing finance agencies be increased substantially.

Mr. TALCOTT. There, you ruined it all.

Mayor HOLLAND. On a local level we find that there is considerable hostility on the part of the area offices toward the State housing finance agencies. There seems to be an air of competition as to who can "use more of the section 8 units."

I think that is good in a way. Rather than act like misers the area offices should be encouraged to allow the State agencies to build housing in urban areas such as Trenton, where the private developers will not be able to achieve financial feasibility.

Some of this strong language reflects the feelings of the staff people who deal daily with HUD.

Mr. TALCOTT. Yes, and they have a built-in interest in protecting their own jobs.

Mayor HOLLAND. We have decreased our department of planning development staff by 20 in the last 3 years.

Mr. BOLAND. Mayor Holland, thank you very much for a fine statement, we appreciate your position. We understand the input that the National League of Cities and the U.S. Conference of Mayors have had with respect to this statement.

One of the problems that the Department faced was that the Housing and Community Development Act of 1974 is a very complex proposal and it did take some time for it to get off the ground.

In any event, we appreciate the position of the league and the Conference. We appreciate very much your appearance.

Mayor HOLLAND. I appreciate the opportunity to be heard.

[The statements follow:]

The National League of Cities and the U.S. Conference of Mayors express their gratitude to the House Appropriation's Subcommittee on HUD and Independent Agencies for its continuing interest in our national urban problems and in national programs aimed at helping city governments deal with them. The League and the Conference are pleased to offer our observations concerning the HUD budget, particularly as it affects city government.

NLC and USCM vigorously supported the enactment of the Housing and Community Development Act of 1974 and with it the creation of a new system of block grants for communities development purposes. We are pleased that the Congress responded to our requests for the reform of the old categorical funding programs through the creation of a more flexible, block grant approach to federal assistance for community development purposes.

The initial funding of the new program at roughly $2.45 billion for CD purposes, while $55 million short of the fiscal year 1975 authorization, seemed an adequate beginning to operate the new distribution system. No one could have anticipated that the satisfaction of the funding requirements of entitlement cities within SMSA's and the high proportion of urban counties which HUD determined were qualified for funding would deplete the fiscal year 1975 SMSA discretionary balances before any nonentitlement SMSA communities could apply for CD funds.

Chairman Boland's amendment to the second supplemental appropriations bill, H.R. 5899, adding $55 million to the HUD fiscal year 1975 appropriation earmarked for discretionary balances cities should begin to deal with this problem when the supplemental appropriations bill becomes law.

We were pleased that the administration recognized this problem by adding $200 million to its CD request for fiscal year 1976. While final amounts for discretionary balance funding which will be generated by the higher request are not known, it appears that something short of $40 million would be available for SMSA discretionary funding at the $2.75 billion level. Even coupled with the supplemental appropriation of $55 million, this is insufficient to satisfy the discretionary demands. A CD appropriation of the full authorized amount of some $3 billion would generate approximately $200 million for this purpose and represent a far more nearly adequate amount of SMSA discretionary purposes.

Moreover, it is clearly manifest that the demands of the entitlement cities and urban counties in fiscal year 1976 will either exceed or equal the fiscal year 1975 amount. Indeed, it can be argued that many communities, addressing the serious problems attendant to dealing with the problems of slums, blight, and the provision of a sound community environment, together wtih adequate housing require far greater assistance than available under their entitlement amounts under the act. Only time will allow the measurement of the total dimensions of this problem.

We are clear, however, that communities participating in the program are fashioning programs responsive to the issues identified by the Congress as it wrote the act.

This does not argue that no problems have emerged in phasing into the new system. A number of cities have struggled with the proposition of the required housing assistance plan in the face of data shortages and genuinely limited options for siting low income housing. Additional problems in the housing field have related to the timing of the release of the new section 8 guidelines and allocation of section 8 housing funds to HUD area offices. This sluggishness of the new housing program delays delivery of low and moderate income housing units in a timely fashion. In spite of these problems, however, we must concede that the new program is in something of a shakedown phase which will require a number of adjustments including adequate instructions to all of HUD concerning the governing quality of the housing assistance plan to the allocation of units by HUD. We hope that the utilization of the new guidelines and the dissemination of information concerning both new programs throughout HUD will reduce these problems and normalize the operation of the priorities establish in the act. We believe that the new process and plan, linking CD planning and funding to a hard-headed housing assistance plan, improves the delivery system considerably and reduces markedly the possibiliy of the approval of unsound projects and the problems which flow from such ventures.

There can be little question that we must reinitiate production of low and moderate income units. The more than 2-year moratorium on new Federal commitments has caused a gloomy situation to become even more desperate. We accept the Administration's target of 400,000 units under section 8, but we would

support any combination of programs which will upgrade housing for low- and moderate-income families. In this connection we endorse testimony to be offered by the National Association of Housing and Redevelopment officials concerning utilization of available contract authority for section 235, 236, and 202 housing programs and adequate operating assistance for public housing programs.

The 701 program provides strategic planning and management assistance to cities as well as the traditional recipients of planning assistance funds. We were most disturbed by the administration's proposal to defer $50 million of the $100 million fiscal year 1975 appropriation and we are pleased that the Congress did not agree with this course of action. We trust that these funds will be allocated and that a request for funding for fiscal year 1976 will be forthcoming from the administration in due course.

It seems clear to us that the administration will probably only seek an amount comparable to that amount appropriated for the program last year and of which amount it proposed to reduce its outlays by 50 percent. We were disappointed by this proposal. We would be equally disappointed were the administration to propose an appropriation of $50 million for fiscal year 1976 and especially disappointed should the committee approve an amount less than the full authorized level of $150 million for fiscal year 1976.

Some will argue no doubt, that the need for 701 funding has diminished because of the potential utilization of community development funds by cities for essentially the same purposes. As a practical matter, this simply is not the case at the city level and, of course, cannot be the case among others whose planning and management activities are supported by the 701 program. Cities, after all, are a minor constituent with respect to the total allocation of 701 moneys with metropolitan area planning bodies and State agencies receiving the lion's share of the funds. Therefore, only a relatively small amount of the total could even possibly be underwritten by community development funds. Of that portion, realistically, cities have invested planning and management funds in city planning agencies, and departments of city planning and liaison and management staff in the Chief Administrator's office. Community development funds, on the other hand, have been programmed for community development purposes and for the administration of community development activities. There is little doubt that these two activities are complementary; but in no sense can one supplant each other. Diminution for support of 701, in fact, would, in our judgment, be an uneconomical disinvestment in that planning and management activities are those governmental undertakings which can hold the total cost of Government down and produce more efficient local decisions and operations.

We request, therefore, that the committee provide the full authorization of $150 million for fiscal year 1976 particularly in light of the fact that funding for the program has not taken account of the impact of inflation upon its activities at the State and local level.

In terms of CD appropriation, NLC and USCM express their gratitude to the chairman and the committee and possibly the House. The resolution's recognition of the necessity of a full authorized appropriation of $3 billion for the CD program is most reassuring. We appreciate the committee's preparatory work.

We are familiar with the testimony offered yesterday before this committee by Ohio Congressman Charles Whalen on the national problem of 236 housing project defaults triggered by rising utility costs. We endorse the positions he has set forward.

We encourage the committee to explore with the Department the use of the rent supplement program in conjunction with the 236 program to provide a workable subsidy mechanism to cure the utility cost problem.

Our closing point deals with the importance of the Federal research and development agenda for cities.

In your past days of hearings you have heard testimony regarding the total NSF budget and the HUD budget. I want to now address specific portions of those budgets and point to their importance to our R. & D. agenda.

Briefly, however, let me lay out for your consideration the total Federal R. & D. dilemma facing cities.

HERE ARE THE FACTS

The President's budget proposes that $21 billion be spent in fiscal year 1976 for Federal R. & D. Of that, some $7.4 billion is proposed for domestic * * * or nondefense related R. & D. efforts. We estimate that of this latter figure, only $150

million will go to State and local government R. & D. efforts * *.* demonstration projects through HUD and NSF, etc. Worse yet, a recent study by the National Science Foundation shows that only $43 million total is being spent by the Federal Government to transfer the utilization of all Federal R. & D. efforts. In other words, only 0.25 percent of the total Federal R. & D. budget is being devoted to the utilization of the results of those efforts.

Faced with the overwhelming reality that the majority of the Federal R. & D. effort is not designed to help cities, we have had to target on the few programs which do. The appropriation for two of these programs fall into the jurisdiction of this committee.

NSF—INTERGOVERNMENTAL SCIENCE PROGRAM

The first is the intergovernmental science program which falls within the NSF budget line item for intergovernmental science and research utilization.

With the committee's permission I would like to append for this committee's consideration the recent testimony of several of my colleagues before the authorizing committee on the House and Senate sides.

In that testimony I believe we have made a compelling case for a $10 million appropriation for the intergovernmental science program as a key link to new technology development and utilization in cities, counties, and State governments.

As this committee knows, the House Science and Technology Committee, working within the budget ceiling established by OMB for the entire NSF budget, has provided $6 million authorization with attendant minimum expenditure language for the intergovernmental science program.

Yesterday (Tuesday, May 13), the Senate unanimously approved a $10 million line item authorization for the intergovernmental science program with a minimum expenditure requirement underpinning that authorization.

I believe these actions both constitute an overwhelming endorsement by these committees of the effectiveness of this program.

Accordingly, I would request that this committee sustain the endorsement of the House and Senate authorizing committees and appropriate the full authorization which comes from the House-Senate conference.

One final point on the NSF intergovernmental science program budget request. Collectively my colleagues and I arrived at a $10 million request as a minimum request, as we knew we could effectively utilize two or three times that amount in fiscal year 1976.

Our internal conclusion, however, was that our ultimate objective, which is the shaping of the $21 billion Federal R. & D. expenditure to have some importance or relevance to our domestic needs was so important, that we decided to avoid any request which seemed to be an outlandish increase.

If this committee appropriates $10 million to the National Science Foundation's intergovernmental science program, I assure you that given the level of meaningful dialog, we currently have with the program's present management, these funds will continue to be utilized in the wise manner they have in the past.

THE HUD POLICY DEVELOPMENT AND RESEARCH BUDGET

HUD is the program agency we look for in terms of program assistance. Within that contact we are working with the Office of the Assistant Secretary for Policy Development and Research to develop the research and the development activities designed around our program needs. It is this unit which sponsors the actual demonstration within program areas, and as such is of enormous importance to State and local governments.

Examples of successful HUD P.D. & R. efforts which I am familiar with include:

The work they did in preparation for the implementation of the new community development block grant. Working with the national interest groups and local officials the research arm of HUD helped over 4,000 local officials prepare for the use of the block grant, which, thanks to this assistance, is now well underway.

This unit is continuing to work with us to monitor the effectiveness of the new block grant and its attendant housing assistance plan in meeting the stated national goals.

This unit is part of a collaborative team which together with the Federal Home Loan Bank Board is engaged in a very promising series of

neighborhood preservation demonstrations around the country. This program brings together in a meaningful partnership of neighborhood residents, local governments and lending institutions to target their resources in such a way as to arrest neighborhood decline.

I am sure members of this committee are familiar with the Urban Information Systems Interagency Committee (USAC) programs which is now in the stage of applying their municipal management computer technology products in other cities around the nation.

Working internally, this unit has worked with other parts of HUD to establish performance and evaluation and funding systems for the operations of local housing authorities . . . and believe me it is of great importance to have HUD's help in keeping our housing authority operating at peak efficiency.

The list of program-related analysis, research and demonstration goes on and on.

Therefore, with respect to the HUD budget, there are two items which are absolutely critical with respect to furtherance of this whole thrust of shaping the responsive use of the Federal R. & D. agenda to the needs of State and local government.

The first is the appropriation by this committee of at least the administration's full budget authority request for HUD's Policy Development and Research program.

The Administration has requested a program level of $65 million, which is made up of a new appropriation of $57 million plus the use of $8 million of deferral carryover from the previous year. We feel that such an appropriation is a minimum.

Second, we are finding that we are achieving good success in working directly with the policy and research staff on many of the issues outlined earlier.

We feel that it is important HUD not lessen its analytical and demonstration management capacity during this vital period as we jointly work on the R. & D. needs of State and local government.

We, therefore, urge the committee to appropriate the full administration request of $7.2 million for staff and expenses in HUD's policy research and development program.

And finally, I would remind the committee that in considering our research and development budget requests that the committee be mindful that this year will be a transition year to the new fiscal year system.

We, therefore, request that the committee make the R. & D. requests cited. For example, in the HUD P.D. & R. budget some $16.25 million needs to be added to their program request to cover the added 3 months to October 1. An additional 3 months transition appropriation for HUD P.D. & R. staff and expenses of $3.8 million will be necessary. We urge your acceptance of the administration's request for these amounts.

In conclusion let me say that the research and development science and technology utilization agenda item is among the highest in our priorities at this time.

Gentlemen, I request the full appropriations for the HUD policy development and research budget, and the NSF intergovernmental science program, as outlined.

Thank you very much.

Mr. Chairman, and members of the committee, I am Picot B. Floyd, city manager of Clearwater, Fla., and I am testifying today on behalf of the U.S. Conference of Mayors, the National League of Cities, and the Florida League of Cities. I want to address the issue of how public services to our citizens can be vastly improved by increasing our local government research and development efforts.

Applied research and development for better management methods, information, and products to improve the delivery of public services have been neglected for too long by local governments themselves and by the Federal Government.

The local governments' neglect stems from the fact that the demand for city and county public services has grown far faster than the revenue sources to support them. Local governments simply have not been able to afford to undertake costly and high-risk investments in research and development on their own. Moreover, because of the diverse nature of local government, cities and counties have been concerned about possible duplication of efforts in uncoordinated research and technology programs.

The Federal Government neglect seems far more deliberate. While often recognizing the need for research and the application of technology to local government problems, the Federal Government has failed to commit resources that are in any way equal to—or even cognizant of—the problems we are facing in local government today. Much of the research and development that is sponsored by Federal agencies is done with insufficient local and State government participation to make sure that real local and State needs are met.

Adequately funded Federal programs are needed to support coordinated research, development, and technology applications for local and State governments. Such programs are necessary to provide the financial investment that cities, counties, and States cannot afford on their own. The needs and priorities for these research programs should be established with the full participation of the users—the elected and administrative officials of local and State governments.

The relevance of all Federal research and development expenditures to local government, however, has not been totally bleak. Although minimally funded, some efforts are underway to bridge the gap between the research and development needs of local governments and the resources available to meet these needs. One such program is the intergovernmental science program of the National Science Foundation which has been funding the building of mechanisms to transfer research and development capability and to provide technical assistance so that research results are made useful to local governments. This program has had a meager $1 million per year for the past 4 years for these purposes. However, it has applied these sparce resources in a very effective manner. I would also point out that this is one of the few programs that has systematically included representatives of the user community, such as State legislators, mayors, and city managers in establishing research and technology application priorities.

The achievements which the intergovernmental science program has supported have been impressive.

One example is the development of "Probeye." Manufactured by Hughes Aircraft, it is an infrared device that sees through smoke or darkness. It is used by firemen to locate hot spots and humans overcome by smoke. This device increases the lifesaving capability of firefighters and makes their job faster and more efficient.

The development of Probeye serves as a good illustration of the mileage the NSF intergovernmental science program has been able to squeeze out of very modest investments * * * and demonstrates the strong collaborative interest local governments have in addressing their technology needs and deficiencies.

The Probeye product was originally made for military application at a per unit production cost of approximately $12,000 per unit.

It was discovered by the science adviser attached to the city manager's office in Anaheim, Calif. The reason Anaheim has a science adviser is due to NSF's funding of the California innovation group * * * a confederation of cities and counties plus the California League of Cities which works together within the State to explore and develop opportunities to advance city productivity through application of new technology.

The Anaheim science adviser, recognizing the potential that a modified military version if Probeye could have in the public sector shared his discovery with the others in the local government technology transfer field.

Refinement of and establishment of a local government market for this instrument was undertaken by a user requirements committee of Public Technology, Inc. Public Technology, Inc. is a public service, nonprofit organization established in 1971 by the six major public interest groups for State and local government. These groups are the National League of Cities, U.S. Conference of Mayors, International City Management Association, National Governors Conference, Council of State Governments and the National Association of Counties. The purpose of P.T.I. is to act as the research and development arm of local and State governments and to broker, if you will, science and technology from the private sector, universities, and the Federal Government to State and local government. A portion of PTI's administrative costs are sustained by foundation support and local government subscriptions. PTI also does receive some project support from the intergovernmental science program.

Working with Hughes Aircraft, a production model of Probeye which sells for $3,575 has been made available (as compared to the $12,000 military model per unit cost).

PTI is continuing to help this new product vendor market this new time and lifesaving product in what is for them a new sales area . . . the local government sector market.

In total the Probeye story represents a good example of city to city, city to public interest group (PTI), PTI to private sector vendor cooperation, much of which was made possible through strategic/fortitudinous assistance provided by NSF's intergovernmental science program.

Another intergovernmental science program project is the Urban Consortium for Technology Initiatives. In this program, the 27 largest cities of the Nation and 6 large urban counties have organized to build a national agenda of local government needs that our Federal agencies can address with their research and development programs. PTI is the secretariat for this organization. With local government involved in research and development agenda setting, as well as the research and development process, we are convinced that the Federal research results will be transferred and used.

The intergovernmental science program does not confine itself to the larger or more sophisticated cities of the Nation. It has proven itself in four small rural towns in Geneva County. Ala., where a roving ex-space engineer is the bridge to Auburn University's School of Engineering and other outside resources of expertise. Now this project is being expanded into a statewide Alabama innovation group.

Also, the intergovernmental science program has funded a project with the International City Management Association to identify and evaluate existing innovations in cities and to transfer them to other cities in the United States. This project takes the best of local government innovations and makes them available to all other cities—large and small.

Now where does this all lead us? I would first suggest we look at the proposed national priorities for research and development expenditures.

The budget of the United States for fiscal year 1976 includes approximately $21 billion for research and development programs. Excluding space and defense R. & D. of $2.9 and $11.4 respectively, $6.7 billion is left for routine domestic R. & D. Of this last figure, only an estimated $150 million will go to direct State and local governments' R. & D. efforts.

Second, we would hope that notwithstanding this low direct expenditure, that much of the domestic and nondomestic R. & D. efforts which did not go to States and local government would be made available for State and local government utilization. Unfortunately, a survey of what Federal agencies were doing to foster applications of their research programs conducted by the National Academy of Engineering found that while billions are spent on research itself, only $43 million is being spent in applying the results of that research. By my calculations that means this Nation is devoting only about 0.25 percent of the total R. & D. budget to the utilization of the results of the national R. & D. effort. In this report, it is interesting to compare the private sector industrial picture where at least $10 is spent on application for every $1 on research. This committee can decide if this priority is in balance.

Third, I would suggest that we look at the budget of the National Science Foundation.

I have recited the accomplishments of the intergovernmental science program. Frankly, gentlemen, we in the cities feel we at long last have a good thing going for us—an intergovernmental science program at the National Science Foundation, run by people sensitive to State and local government needs—people who are willing to let us participate in the local government program decisionmaking process of the Federal Government. For 4 years this program's budget has been awfully low—only $1 million per year. Dr. Stever and the intergovernmental science program have set new marks of achievement with only a few dollars. We are confident—no, we know that with proper funding from this Congress and with our help, the intergovernmental science program could spark the encouragement of Americans everywhere to a better, richer, more rewarding life. I should be asking for $50 million. I'm asking for only $10 million for this most worthwhile program. Further, I would ask this committee to insert language into the appropriations bill which will insure the expenditure of these funds by NSF for this program.

My fourth point goes to the relevancy of the entire NSF budget. Several months ago, I noticed a news article which indicated that a 3,000 year old skeleton had been unearthed in Ethiopia by an NSF-funded project. This morning in the Washington Post I noticed an Associated Press article "Another Love Story," which

related the facts that a total of $465,000 in NSF funds were being applied toward the study of passionate love.

It frankly would be easy to suggest that these expenditures are symptomatic of misplaced priorities; however, what I would rather suggest is a constructive suggestion. The House Science and Technology Committee increased the authorization for NSF's science education support and the science education innovation programs. This House increase gives us the opportunity to constructively suggest that the Senate committee consider committee language which would instruct NSF to actively explore the ways in which these programs can focus the research and analyses skills of Americas colleges and universities on the needs of urban America.

The only significant attempt to make this connection between cities and universities to date has been HUD's urban observatories program . . . but as usual that program has been starved of the resources required to make it meet any major potential.

If the committee ponders such a suggestion, I would like to add the observation that unless the mayors, city managers, and Governors are involved in the design of the individual university/NSF grant work program, the utility of such academic endeavors may not be as useful as I would hope.

In the final analysis, I would urge this committee to let your vision, your knowledge, and appreciation of the plight of the needs of urban America, and your vote convey your support for the improvement of our Nation's cities.

HUD Comprehensive Planning Grants

WITNESS

RALPH McCLURE, CHAIRMAN, BOARD OF COMMISSIONERS, SALT LAKE CITY, UTAH, FOR THE NATIONAL ASSOCIATION OF COUNTIES

Mr. Boland. We will now hear from Mr. Ralph McClure, chairman of the board of commissioners, Salt Lake City, Utah, for the National Association of Counties. You appear in behalf of the HUD section 701 comprehensive planning grants program.

Mr. McClure. Mr. Chairman and members of the subcommittee: My name is Ralph McClure, and I am chairman of the Board of County Commissioners, Salt Lake County, Utah. I am pleased to appear before you this morning representing Salt Lake County as well as the National Association of Counties (NACo). Our national association is the spokesman for the Nation's 3,100 counties. I am accompanied by John Murphy of the NACo staff.

My testimony will concern itself with funding for the community development block grant portion of HUD appropriations. Later this morning I will join an intergovernmental panel to present the county viewpoint on appropriations for the section 701 comprehensive planning and management program.

Let me say at the outset, Mr. Chairman, that the National Association of Counties strongly supports appropriation of the full $3 billion for community development block grants authorized for fiscal 1976 under title I of the Housing and Community Development Act of 1974. The subcommittee is well aware of the unfortunate situation which has occured this fiscal year with respect to a lack of community development discretionary funds for smaller counties and cities within metropolitan areas. This resulted in part from the failure of the administration to request, and the Congress to appropriate, the full amount authorized for fiscal 1975. This situtaion is very likely to result once again if this subcommittee recommends, and the Congress

appropriates, the $2.7 billion requested for fiscal 1976 by the administration.

Concerning the lack of fiscal 1975 discretionary funds, representations have been made by various individuals and organizations that the chief reason for their lack is attributable to the unexpected large number of urban counties applying for block grant entitlements. Although this is one of the reasons, there are others which when taken together are much more responsible for creating this situation:

INADEQUATE APPROPRIATIONS REQUEST BY THE ADMINISTRATION

The administration requested approximately $54 million less than the total amount authorized. Failure to request all that was authorized had the effect of minimizing discretionary balances since the 1974 act requires that formula and hold harmless entitlements be funded first, and what remains become discretionary funds.

ERROR IN HOLD HARMLESS CALCULATION

HUD has indicated that it underestimated the amount needed to meet hold harmless requirements for communities within metropolitan areas by approximately $15 million to $20 million.

QUALIFICATION OF TOWNSHIP

The act permits designation of certain townships as metropolitan cities thereby providing them formula entitlements. The Department indicates that such townships have fiscal 1975 entitlements totaling $8 million.

UNDERESTIMATION OF THE NUMBER OF QUALIFYING URBAN COUNTIES

The act's definition of an urban county was designed in such a way that 85 urban counties would be potentially eligible for formula entitlements, either directly or through cooperation agreements with units of local government within the county. Among other things, what is required of such urban counties is that they have the power and willingness to undertake essential housing and community development activities.

At the time the House Housing Subcommittee was debating the inclusion of urban counties as formula recipients under the block grant program, it asked HUD how many counties in its judgment would particpaite in the program during the first year. HUD responded that 10 urban counties had had prior program experience in either urban renewal and/or model cities and it would be likely that they had the capability to develop a comprehensive community development program. The committee report reflects this judgment, but it does not preclude others.

At no time did NACo suggest that only 10 counties would participate. Our estimates were considerably higher and were based upon our perception of the interest and capability of urban counties. In fact all of the association's public statements spoke of 85 urban counties potentially qualifying.

HUD now indicates that approximately 75 urban counties, one of which is Salt Lake, have been qualified to file applications for their fiscal 1975 entitlements. These counties have entered into cooperation agreements with approximately 1,500 units of local government within these counties.

This has provoked criticism that HUD has been too lenient in qualifying counties and that somehow these counties are not worthy to receive block grant entitlements.

To say the least, it is amazing that so many counties were able to achieve urban county status, under extreme time constraints. Consider what they had to contend with since the act was signed last August. Final regulations governing urban county eligibility were not promulgated until November 13, 1974. Between November and the end of February urban counties were advised that HUD would not prescribe a model cooperation agreement and that they were pretty much on their own. In late February they were advised that their cooperation agreements were deficient in that they lacked a variety of elements (which before then had not been prescribed). In nearly every case urban counties were required to renegotiate their cooperation agreements with units of local government. Despite the confusion and delay which resulted, the 75 urban counties are expected to be in the program this year.

The fact that 1,500 smaller communities are participating with urban counties should be stressed. These communities constitute 40 percent of the population of SMSA's and were they not part of urban county programs they would be competitors for SMSA and discretionary funds. It is NACo's belief that the urban county provisions of the Housing and Community Development Act of 1974 are carrying out an important national objective, that of improving intergovernmental cooperation at the local level, as well as eliminating and preventing slums and blight and improving housing.

Mr. Chairman, let me tell you how Salt Lake County has formulated its community development program and what it is designed to accomplish.

Simply, our basic objective is to develop a viable urban community by providing decent housing and a suitable living environment by expanding social and economic opportunities, principally for our citizens of low and moderate income.

There is little difference between our county and the many other urban areas in America today, and there are great similarities in our problems.

Salt Lake County is the largest county in Utah, containing a population of 458,607. It includes the city of Salt Lake as well as eight other incorporated areas. The population of the unincorporated area is 229,185 and, including those smaller communities outside the city of Salt Lake the total urban county population for purposes of the community development program is 282,722.

We are faced with a burgeoning and concentrated population that is demanding new and expanding services to be provided from revenues that are already strapped by high and inflationary costs. Hopefully, the community development program will help provide some funds to help attain our objectives.

Salt Lake County has a diverse rural, suburban, and urban population and residents of unincorporated Salt Lake County and the residents of each participating city have played an active role in the formulation of our community development and housing program.

It hasn't been easy. Much had to be accomplished within a HUD-imposed time frame that often seemed unreal. But we tackled our task with determination, and I am happy to report that Salt Lake County's community development and housing application has been filed with the regional office of HUD in Denver.

The rules of the game for community development are slightly different for urban counties than for cities. Most importantly we had to prove to HUD that we were an eligible urban county. This involved lengthy discussions and research with our county attorney's office and the completion of a voluminous questionnaire outlining our past participation in HUD programs, our administrative capabilities, and statutory powers to carry out the program.

Many activities were carried out simultaneously, including the framing of our interlocal cooperation agreements and negotiations with the mayors and councils of our incorporated cities. About the same time, we established an internal management team of county leaders of departments administering programs pertinent to community development and housing.

After many meetings, this management team compiled a shopping list of projects it felt should receive county attention.

Now, at the same time, a citizens' community development advisory council was created, representing both incorporated and unincorporated Salt Lake County. A public hearing was called at which the community development program was explained in further detail. The advisory council then elected a steering committee to study all community development proposals to be submitted to it.

Then followed 2 weeks of consecutive late night and weekend meetings, onsite inspections, and intensive study by the steering committee of all the proposals submitted to it by the county departments, civic, and other community groups.

The steering committee compiled its recommendations and carried them back to a second public hearing with the advisory council for discussion and some change.

The finalized preferences were then submitted to the board of county commissioners who accepted and approved—with some slight changes—the proposed projects.

I might add that much of this time it was somewhat like working in the dark because we had not been told: (1) We were an eligible county, and (2) the exact level of funding for our first year.

Most recently we have completed our A–95 review process, amending our interlocal agreements as directed by HUD and have been recognized as an urban county at a $1,172,000 funding level for the first year with or without our incorporated cities.

These briefly are the key essentials of how Salt Lake County formulated its community development program for this year under excruiating time limits. Now a word about what we intend to do with funds received.

The critical components of Salt Lake County's community development program this first year have been determined to be housing and

rehabilitation, including a code enforcement study: recreational land acquisition and development, fire safety and streets, lights and other vital neighborhood improvements designed to stem the flow of blight and deterioration.

Mr. Chairman, Salt Lake County and its incorporated cities—excluding Salt Lake City, that has its own program—have joined in a partnership for community development.

As I pointed out earlier, these 8 cities are among the 1,500 smaller communities who will participate with urban counties and in so doing will be assured some funding for their community development and housing needs.

Many of the elected officials of the incorporated cities have voiced pleasure in participating with Salt Lake County, to receive moneys they might not otherwise receive and have available to their projects the expertise of the county professional staffs.

In many cases the elected city officials from smaller communities do not have qualified staffs responsible to them for planning and analysis and for program development and evaluation.

We in Salt Lake County recognize the fact that many community development needs are countywide in nature and require local cooperation between cities and counties.

Mr. Chairman, Salt Lake County is just one example of what urban counties are doing across the country to meet their community development and housing needs. Congress must continue to appropriate the funds necessary to assist in this effort. But while funds are guaranteed to metropolitan cities and urban counties by formula, we must not forget the smaller cities and counties. Their needs can be met by appropriation of the full $3 billion authorized for fiscal 1976. A resolution—attached—adopted by NACO's Community Development Steering Committee on May 6 urges the Congress to do just that.

Mr. Chairman, I want to thank you for the opportunity of appearing here this morning and discussing with you this program which is one of great hope and promise for a coordinated attack on the community development and housing problems in this country's urban counties, metropolitan cities and its smaller counties and cities.

NATIONAL ASSOCATION OF COUNTIES, COMMUNITY DEVELOPMENT STEERING COMMITTEE

RESOLUTION—FULL FUNDING FOR COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM—ADOPTED MAY 6, 1975

The National Association of Counties calls upon the Congress of the United States to fully fund title I of the Housing and Community Development Act of 1974 at the authorized $3 billion level for fiscal 1976. The present requests of the Department of Housing and Urban Development fall $200 million short of this amount and will undermine current and future community development efforts.

One of the primary purposes of this important legislation is to provide local elected officials with an increased capacity to plan for future community development activities based on an assured level of funding. Failure on the part of HUD to request the full authorization appears to misinterpret the very intent of the legislation in this important second program year. Without full funding entitlement urban counties and cities will be forced to modify and curtail planned and already approved activities; while nonentitlement jurisdictions will have to delay addressing critical community development needs.

Second, based on analysis of program demand for community development funds from nonentitlement cities and counties both within SMSA's and in nonmetropolitan areas, it is apparent that funding at authorized levels will not

meet the needs of the Nation's smaller jurisdictions. NACo calls upon the Congress, the Office of Management and Budget and the Department of Housing and Urban Development to review and analyze the adequacy of current and future program levels to insure that the financial needs of these smaller jurisdictions are not ignored. NACo remains willing to provide assistance in this important effort.

Mr. SHIPLEY. Thank you very much, Mr. McClure. We are always pleased to hear from the National Association of Counties.

I understand that we will have a panel now so I would appreciate it if you would keep your seat and we will have the other members of that panel join you.

HUD COMPREHENSIVE PLANNING GRANTS

WITNESSES

RALPH McCLURE, CHAIRMAN, BOARD OF COMMISSIONERS, SALT LAKE CITY, UTAH

MRS. JEAN PACKARD, CHAIRMAN, BOARD OF SUPERVISORS, FAIRFAX COUNTY, VA., AND PRESIDENT, METROPOLITAN COUNCIL OF GOVERNMENTS FOR THE NATIONAL ASSOCIATION OF REGIONAL COUNCILS

MIKE CARROLL, VICE MAYOR, INDIANAPOLIS, IND.

CURTIS HALL, CITY MANAGER, EAST CLEVELAND, OHIO

JOHN MURPHY, NATIONAL ASSOCIATION OF COUNTIES

Mr. SHIPLEY. I would suggest that you all submit your statements for the record, if this is agreeable with you, then proceed in any way you wish to get your points across.

STATEMENT OF THE NATIONAL ASSOCIATION OF REGIONAL COUNCILS

The National Association of Regional Councils (NARC) urges Congress to appropriate the full $150 million authorized for the HUD 701 comprehensive planning and management assistance program for fiscal year 1976.

NARC was initiated in 1967 by the National League of Cities and the National Association of Counties to assist local government elected officials in organizing the rapidly growing number of regional councils.

Regional councils are areawide organizations of general purpose local governments involving more than one local government and encompassing a total regional community. They exist both in densely populated metropolitan areas and in less populated rural areas. Their primary purposes are to increase communication, coordination, and cooperative decisionmaking among local governments; to review and comment on certain Federal grant applications; and to develop policies and programs to meet common problems and to guide sound and orderly development.

More than 600 existing regional councils deal with areawide problems such as growth, land use, transportation, community development, energy, employment programs, public safety and environmental quality. Their governing bodies are composed primarily of local government elected officials. In recent years, States have encouraged the continued growth of regional councils. Forty-four States have initiated the process of establishing substate districts. Of these, nearly 34 have completed the subdistricting process and have designated regional councils in each district.

The National Association is a membership association of regional councils throughout the Nation. Our board is composed of local government elected officials and other regional council policy members, as well as representatives from the boards of the National League of Cities and National Association of Counties.

Congress has done much to develop regional consciousness. Highway, mass transit, air and water quality programs are examples. Congress has required State and areawide coordination for such Federal assistance programs in section

204 of the Demonstration Cities and Metropolitan Development Act of 1966, and later in title IV of the Intergovernmental Cooperation Act of 1968. We have estimated through a survey of our members that this coordination requirement as implemented through OMB circular A–95 saves approximately $400 million a year in Federal assistance projects, which, if funded would be duplicative or inconsistent with State, local, and regional plans and programs.

Most regional councils have been operating for less than 7 years. During these critical formative years 701 has been the major source of their financial support. Congress has authorized $150 million for 701 in fiscal year 1976, I urge this subcommittee to appropriate the full amount so that the important programs funded by 701 will be carried out as they were intended to be. An appropriation of less than the full amount will diminish the effectiveness of the program and cost more in the long run.

We need effective planning and management at all levels of government, and 701 plays a vital and unique role. It is the only Federal program which provides the necessary assistance to State, local and areawide units to improve planning and management capacities. Rather than having a single purpose focus, it provides the assistance necessary to integrate various functional planning and programing efforts into a coherent and comprehensive approach to solving governmental problems. Without 701 it would be nearly impossible for regional councils to integrate into meaningful policies and plan the areawide planning for such activities as transportation, emergency medical assistance, air quality, land use and others. The 701 funds also give regional councils resources necessary to respond to local problems and priorities, and 701 remains the single most important funding source to regional councils.

It is important to note the public management aspects of 701. Today all levels of government are under great financial strain. The priorities for the use of governmental resources are those projects which meet identifiable needs of the people.

It is difficult for State and local governments to allocate the resources they would like to improve policymaking and management capacities. In recent years the 701 program has been an important means to provide substantial resources to improve decisionmaking and management capabilities. It helps to assure that public investment decisions are sound, cost effective, and most important, consistent with the overall developmental goals and policies of State, regional and local governments. This coordinative process must be sustained especially during a period in which Congress is accelerating public works projects to provide more jobs and improve the economy.

The 701 program is the principal Federal funding source supporting the review and comment procedures established by Congress under the Intergovernmental Cooperation Act of 1968, and implemented through U.S. Office of Management and Budget circular A–95. The A–95 process provides the opportunity for State and local governments, through their regional councils, to determine the impact of applications for certain Federal grants in their governmental unit, and the region, and whether the proposed projects duplicate existing or other proposed programs. Tangible benefits from this 701 supported review and comment procedure are substantial, as I mentioned earlier.

To receive community development block grant entitlements cities and urban counties are required to develop housing assistance plans. Using 701, regional councils can provide the framework and necessary assistance to applicants to develop such plans. But 701 is also doing so much more. Following are some pertinent examples:

Assisted by 701 funds, the Lower Pioneer Valley Regional Planning Commission (West Springfield, Mass.) was able to facilitate the necessary intergovernmental cooperation to establish a regional transit authority for the area. The commission brought together local governments and provided necessary technical assistance to consolidate mutual interests and approach mass transportation problems. This will facilitate a critically needed reduction in fuel consump- and develop more efficient transportation services for the areas.

The South Central Illinois Regional Planning and Development Commission (Salem) has used 701 for a number of local projects. The council assisted localities to complete and file the necessary forms and statements for general revenue sharing entitlements. As a result not one eligible recipient in the area is in noncompliance with Federal regulations for general revenue sharing programs. In addition, the council is aiding localities to develop housing assistance plans required as part of the community development block grant program. The com-

mission also assisted eight nonmetropolitan communities to file applications for community development discretionary funds and four of the eight have received approval. With assistance from 701 the commission conducted a regionwide emergency medical services systems study and also developed a three-county solid waste management plan.

The Northeastern Indiana Regional Coordinating Council (formerly Three Rivers RCC) (Fort Wayne), has saved thousands of Federal dollars through areawide projects such as open space plans, a sanitary sewer plan, and an areawide solid waste management plan. Through coordinating plans for a number of jurisdictions, duplication of effort has been avoided and maximum benefit obtained.

Through comprehensive plans supported by 701 two local landmarks, a theatre and a hotel, were preserved and restored for use as a theatre complex. The cost of demolition and new buildings would have been much greater than the cost of restoration, and historic preservation was considered in the comprehensive planning process.

This council also uses its 701 funds to maintain an areawide data system which has assisted carpool programs, elderly and handicapped service programs, and housing and mass transportation projects.

The Economic Development Council of Northeastern Pennsylvania (AVOCA) has used "701" funds to provide technical assistance to local governments applying for flood insurance. The council assisted local governments with developing flood insurance applications and facilitated the necessary intergovernmental cooperation and communication for these efforts. As a result of EDCNP's efforts, 111 out of 267 local governments in its region have qualified for flood insurance. This is probably the largest number of qualifications for any region in the country.

Another program that "701" makes possible is assistance to local governments in times of disaster. When the northern tier region of Pennsylvania was severely hit by Hurricane Agnes, the Northern Tier Regional Planning and Development Commission (Towanda) provided immediate assistance. The commission centrally coordinated the overall emergency relief effort, found sites for 130 mobile homes and established priority lists for their use. In one instance, they assigned a staff engineer as administrator for a hard-hit small community. During the weeks following the disaster, the commission assisted more than 50 communities in preparing their applications for disaster relief from the Office of Emergency Preparedness. Similar assistance has been given in Corpus Christi, Tex., Greenville, Miss., and in other regions of the country.

To assume their developmental review responsibility granted under Florida State law, the Tampa Bay Regional Planning Council (St. Petersburg) is using "701" funds for a regional impact analysis system. Through RIAS, economic, land use and demographic data has been applied to measure the impact of large scale developments in the region. As a result one developer of a residential community revised the price structure of his homes to include more moderately priced units, after the council made note of the adverse impact of building only higher priced homes. In another instance, ground was broken for a regional mall only after the developer was assessed for his share of the costs of highway improvements necessitated by his development. Throughout Florida, similar programs have given local elected officials a great deal more information on which to base land use decisions.

In conclusion the National Association of Regional Councils urges Congress to appropriate the full $150 million fiscal year 1976 authorization for 701. Using 701 funds, States, local governments, and regional councils can decrease the cost of government and increase productivity, maximize the use of limited resources, improve governmental management, implement comprehensive planning programs, and better deal with crucial economic questions and considerations.

Statement of the National Association of Counties

The National Association of Counties (NACo), the only organization representing county governments throughout the United States, appreciates the opportunity to present its views to the House HUD Appropriations Subcommittee concerning fiscal 1976 appropriations for the section 701 comprehensive planning and management program.

The 701 comprehensive planning and management program has, since its enactment as part of the Housing Act of 1954, served as a continuing source of Federal

assistance for comprehensive planning by States, counties, cities, and regional organizations. It is the only federal program which allows recipients to plan in a comprehensive manner. Over the years, the Congress has enacted a number of functional planning programs for transportation, water pollution control, economic development, health, and the like. Something, however, is needed to tie all of these narrowly focused planning programs together to allow for planning in a coordinated, comprehensive manner. Without the coordination provided by 701, these various functional plans run the risk of being incompatible with one another and the Federal resources supporting them potentially may be wasted.

The 701 is a national program for all sizes and types of communities from the largest cities, counties, and States to the smallest Indian reservation. As with most Federal programs, however, it has suffered from a demand greater than the amount of money available.

In fiscal year 1974 Congress recognized that the program needed additional funds to meet this demand. Through a supplemental appropriation, it added $50 million to the $50 million already appropriated as part of the regular HUD appropriations act bringing the program level to $100 million. The Congress again appropriated $100 million for fiscal year 1973. For fiscal year 1974 the appropriation was cut by 25 percent because in the view of this subcommittee, HUD was not spending the money fast enough. What this has meant, however, is that recipients have had to cut their programs by 25 percent across the board. The Congress subsequently recognized the adverse impact this cut was having and restored 701 to $100 million for fiscal year 1975.

Title IV of the Housing and Community Development Act of 1974 authorized a total of $150 million for section 701 grants for fiscal 1976. The National Association of Counties strongly urges this subcommittee to recommend and the Congress appropriate the full $150 million authorized. Justification for appropriating this amount centers on the following:

1. Additional recipients.—The 1974 act authorizes urban counties to apply directly to HUD for 701 assistance, rather than to the States as at present. This provision recognizes that counties—particularly urban counties—have not received their "fair share" of 701 funds from the States in the past. This will create an additional demand on 701 for fiscal 1975.

2. New requirements.—The 1974 act mandates that all 701 recipients include as part of their comprehensive plan, a land use element, and a housing element. These are new requirements, not prescribed before. They will place an additional demand on recipients, and, because they are federally mandated, Federal assistance should be provided to assist in their development.

3. Effect of inflation.—The level of appropriation for the 701 program has remained at the same or lower level since 1972—$100 million. With inflation now double digit, a static appropriations level buys less program.

4. Change in the Federal fiscal year.—Fiscal 1976 will actually cover 15 months due to a change in the Federal fiscal year brought about by the Budget Control and Impoundment Reporting Act of 1974. This will mean that recipients will have to stretch their 701 funds further, actually into a 15-month program year.

Two other points should be made with respect to 701 funding. First, community development funding under title I of the 1974 act was in no way intended to supplant funding for 701 comprehensive planning. Section 701 was reauthorized as a separate program under title IV of the same act. Assistance under title IV is for much broader, comprehensive planning. Although community development funds available under title I may be used for community development planning, this planning is functional planning—more narrow in purpose and scope than comprehensive planning.

Second, HUD has advised urban counties that although they may apply directly for 701 funding, rather than through the States, and that although $100 million as been appropriated for fiscal 1975 these counties will only be guaranteed $750,000 which would fund only 10 counties which have had prior 701 funding. Although HUD has advised its regional offices that they may fund new urban county applications from funds earmarked for cities over 50,000 (a total of $20 million) this authorization is made virtually meaningless by another HUD directive that no new applications may be approved unless ones previously funded are not refunded. This pretty much precludes any new urban county starts. For this and the other reasons herein stated, NACo strongly urges the subcommittee to approve an appropriation of $150 million for fiscal 1976 701 comprehensive planning and management grants.

STATEMENT OF MICHAEL CARROLL, AIP, DEPUTY MAYOR OF THE CITY OF INDIANAPOLIS, IND., IN BEHALF OF THE AMERICAN INSTITUTE OF PLANNERS AND IN COORDINATION WITH THE NATIONAL LEAGUE OF CITIES, THE NATIONAL ASSOCIATION OF COUNTIES AND THE NATIONAL ASSOCIATION OF REGIONAL COUNCILS

Chairman Boland and members of the committee, my name is Mike Carroll and I am deputy mayor of the city of Indianapolis and my colleagues with me today are all elected officials of local governments around the country. We are here today testifying on behalf of the 701 comprehensive planning program and encourage you to appropriate the full authorization level of $150 million for fiscal year 1976. The organizations we represent, namely the various public interest groups representing local governments, have appeared before this committee numerous times. We have on various occasions had the staffs of State and local governments come before you to explain the technical values of planning and management programs around the country. Today, we would like to emphasize the growing importance this program has for State and local elected officials in the daily operations of government.

With the committee's permission, we would like to submit our statements for the record and then summarize our remarks. Each of us would like to spend a few minutes citing important local government examples of the relative merits of the 701 program and then following the comments of the last witness, we would gladly answer any questions the committee might have.

As a result of the omnibus Housing and Community Development Act of 1974 many important new approaches to community development have been initiated. In terms of the 701 program, 1974 amendments have made this program more relevant to the needs of local decisionmakers like ourselves. The principal amendments to section 701 repeatedly stress that all recipients must carry out an on-going comprehensive planning "process." I quote the word process to emphasize the importance of the continuing nature of the program. This is not a one shot demonstration of local governments capacity to produce a paper plan, this is a continuing, comprehensive process that provides State and local governments with the capability to coordinate all interrelated activities and make the policy decisions necessary to advance planning to program implementation. One of the most important measures of planning effectiveness is the ability to translate decisions, recommendations and products of the planning process into actual development and implementation decisions. Today, development programing and implementation is being accomplished in significant areas because of the comprehensive planning process in local government that is supported through the 701 program.

This program has had high visibility with State and local governments. The number of eligible recipients has continuously increased over the years, far out reaching funds available for even past clients. Despite reduced funding levels, recipents numbered almost 2,000 in the past fiscal year. These planning jurisdictions have been brought into the planning process. Certain requirements have been mandated by the Federal Government and now they must comply or suffer the loss of future funding. In addition to the new mandated requirements of the 701 program itself, there are many public laws that require an adherence to a comprehensive plan in order to secure other Federal program funds. This is even true of the new community development block grant program and the housing programs of the 1974 act where 701 is envisioned as the link between these functional programs.

From a congressional point of view, the existence of planning requirements as a condition to Federal financial assistance makes eminent good sense. Planning requirements are a form of insurance designed to protect and make most useful the Federal participation in local projects whether through categorical grants, block grants or even revenue sharing. Planning requirements simply say ". . . these things that we are helping to finance must fit together in a thought-through manner and be of long-range benefit." Planning assistance works toward the same ends. The problem is not to reduce planning requirements or planning assistance, but rather to relate them directly and within the framework of the American political decisionmaking system. Therefore, one of the major reasons for expanding the comprehensive planning program is to assist State and local governments in protecting the investment the Federal Government makes in the wide variety of Federal programs.

We have mentioned before that the C.D. block grant program is one of the innovative aspects of the 1974 act. We have long supported the concept of block

grants and are encouraged by the Congress' support of this program. Unfortunately, some of the dialog before this committee in recent months mistakenly leads one to believe that the C.D. block grant program could substitute for the 701 program and indeed that local government would not suffer if 701 funds were cut because of the availability of the C.D. block grant for the same purposes. More recently when HUD Assistant Secretary Meeker was before this committee he stated that these were not interchangeable programs and clarified that the planning called for under the C.D. block grant was for community development planning specifically and was conceived as a functional activity even though the word comprehensive is used in the description. In fact, section 105(a)(12) provides that C.D. block grant funds be used to develop a comprehensive "community development" plan. The conference committee when it addressed this language clarified that it intended to narrow the scope of planning to be undertaken with C.D. block grant funds to functional community development planning. In addition, however, it is clear that Congress intended that C.D. recipients not be precluded from receiving 701 funds. In fact, Congress amended section 701 to provide that cities having populations of at least 50,000 can undertake local activities as opposed to undertaking only planning which is a part of metropolitan planning. The report of the Senate Committee on Banking, Housing and Urban Affairs in discussing this change noted that ". . . it believes that cities should not be prevented from using 701 funds to engage in their own local comprehensive planning to help implement those plans." Furthermore, the committee amended section 701 to allow urban counties to apply directly to HUD for 701 assistance, even though such counties were also made eligible for C.D. block grant funds.

When considering the 701 program, we must remember that 701 is the only program that provides funds for comprehensive planning per se. The law defines comprehensive planning as that acitvity encompassing physical, economic, and social planning and the managment activities of government needed to implement such planning. Furthermore, this planning must be coordinated within the jurisdiction with all functional planning and with other levels of government. It should be clear that States and local government undertake many different functional planning activities and receive Federal assistance for such planning from many different Federal sources through various funding channels. The 701 program is the only program that provides recipients with the flexibility to rationalize these various activities into a unified and compatible whole, that is, a comprehensive plan.

The flexible and yet comprehensive nature of the 701 program has allowed State and local officials the opportunity to respond to critical issues immediately as they arise. Many local jurisdictions have used the 701 program to finance the planning needed to stimulate private investment in their areas. Many Governors, mayors, and county officials are increasingly turning to 701 to improve governmental productivity, reduce costs, and improve services when inflation and recession threaten the economic viability of their jurisdictions. Throughout the Nation the 701 program was able to assist governments in planning to meet the energy crisis with funds used on an emergency basis to develop fuel allocation systems as well as to replan many governmental activities in order to reduce the unnecessary use of fuel. In areas impacted by either natural or manmade disasters 701 funds were made available almost instantly to assist either with reconstruction plans or assist the jurisdiction in planning for major changes in Federal facilities or their withdrawal. The list of general examples could go on indefinitely, however, more specific examples of planning implementation are appended to this statement and I refer you to them to get an overview of specific accomplishments of this program. The stereotype that this is a program that "produces pretty paper plans that sit on a shelf but never implemented" is no longer the case. The 701 program is accomplishing vitally important objectives of State and local governments.

I would now like to present the committee with an overview of the 701 experience in Indianapolis.

Since 1970–71, "701" funding has represented about 12 to 13 percent of the total planning budget for Indianapolis-Marion County, Ind. The average annual budget for comprehensive planning amounts to $1.1 to $1.2 million with about 50 to 55 percent coming from Federal resources. Of this $600,000 to $700,000 in Federal planning grant funding, "701" has averaged about 18 to 21 percent—$120,000 to $150,000—annually.

The city has operated under the integrated grant administration—IGA—program since 1970–71 and supports this method of coordinated comprehensive plan-

ning for localities. The 1974 "701" amendments finally provide legislative support for the IGA concept by providing for the joint use of funds obtained under two or more Federal assistance programs for approved planning and related management activities. Major economies in administration, management, accounting-auditing, application preparation, contractual relationships, work program coordination and performance monitoring can be directly attributed to the IGA program. Rough annual estimates of savings at the level of $125,000 to $150,000 have been achieved by consolidation of many planning programs into one at the local level.

Work funded through the "701" component of the Indianapolis integrated planning grant program has produced a significant impact on governmental decisionmaking (as well as private sector decisions) and provides cities with a unique resource duplicated by no other Federal planning grant program. Work elements basically attributable to "701" within our IGA planning program have contributed substantially to:

(1) The development of legislation creating UNIGOV (consolidated city government), the Greater Indianapolis Housing Development Corp., Inc., the Indianapolis Public Transportation Corp., expansion of the urban renewal taxing district, consolidating three human resource divisions into one local governmental department;

(2) The obtaining of "seed money" for development of governmental and not-for-profit entities to undertake needed functions in central Indiana by underwriting data collection, analysis, application preparation and initial staffing costs—Indiana Heartland Coordinating Commission, Health Services Management, Inc., Model Cities, etc.:

(3) Strengthening the city budgeting and program management capability through:

(A) Effective capital improvement programing with city-county council support;

(B) Prototyping program budgeting with a single departmental budget for 2 years prior to actual introduction on a citywide basis;

(C) Assistance in establishment of the city's chief executive review and comment (CERC) comprehensve Federal and review system;

(D) Supporting staff for evaluation of operation programs (housing rehabilitation and public housing security) and management analyses of operating governmental units;

(E) Formulation of policy position papers on key issues for the mayor (health, multiservice centers, transportation planning, etc.).

(4) Revitalizing the central city tax base and that of the metropolitan community through:

(A) Design of implementation-oriented small area (neighborhood) and project plans (city market restoration, union station preservation, sports area development);

(B) Joint programing ventures with private investors after public development decisions are made;

(C) Involvement of private sector in all downtown, small area and development code-related aspects of comprehensive planning program;

(D) Encouragement of major public investments in such a manner as to generate climate for active private investment decisions.

Since 1970–71, no major public investment has been made (by local, State or Federal Government) in Indianapolis-Marion County without some influence by or interface with the city's comprehensive planning program. Most urban renewal, model cities, housing, demolition, parks-open space, transportation, interceptor sewer and other such expenditures occurred only after having been committed to in a plan. Very specific and documented references to the achievements and products of our local planning program are included in excerpts from the "Integrated grant application for the unified planning program-metropolitan Indianapolis—1975" and in the "Unified planning program evaluation—1973." I have made copies of these documents available for the committee and its staff for further analysis.

Continued Federal commitment to "701" funding at reasonable levels is vital to local units of government that depend upon its flexible nature to finance: (1) Planning to stimulate private investment; (2) planning to strengthen budgeting and management capacity; (3) planning to coordinate public investment strategy; (4) planning to provide the basis on which informed governmental decisions can be made; (5) planning to increase political accountability through public pro-

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gram evaluation; (6) planning to develop the critical mass for institutional change or organizational development and (7) planning to provide access for citizens-constituents in the governmental decisionmaking process.

As we all know, the funding patterns of the 701 program have been highly unpredictable both because of cutbacks in appropriations and deferrals by the administration. For many years the program was statically funded at $50 million. In fiscal year 1972 the program received a major increase in appropriations from the Congress and was funded at $100 million level, however, that was the same year that cities over 50,000 population became an eligible client of the program with funding demands far offsetting the doubling of funds. In fiscal year 1974, because of a confusion about the administration's future intent for this program as well as some confusion as to the administration's funding system, the program operated on a reduced budget of $75 million. In fiscal year 1975 $130 million was authorized, the administration asked for $110 million, the Congress appropriated $100 million, the President deferred $50 million and the Senate reinstated the program to $100 million. For fiscal year 1976 the administration has asked for no funds and $150 million is authorized; the fate of this important program lies with this committee.

Because the appropriation level has not risen above $100 million since 1972 and because of the impact of inflation, HUD has severely limited the number of additional governments that it can assist although the potential demand for assistance is great. Although all States received 701 funds, only 76 percent of cities over 50,000 population, 61 percent of the regional organizations serving nonmetropolitan communities, 9 out of 10 metropolitan organizations and less than 5 percent of small towns and counties are presently assisted. Of the urban counties that were added as direct clients for 701 funds fewer than 20 percent are expected to be assisted this year. And, although Congress broadened the eligibility for Indian groups, there will not be sufficient funds to implement that amendment. In specific cost terms, HUD has projected that in order for clients to meet the mandated housing and land use elements required under the 1974 amendments it will be necessary to expend $55 million in fiscal year 1975, $75 million in fiscal year 1976 and $99 million in fiscal year 1977 solely on those elements. In summary, if one accounts for inflation, as OMB officials suggest, a funding level of $150 million in fiscal year 1976 will barely support program activities equal to those in fiscal year 1972.

We urge this committee to support an appropriation of $150 million for the 701 comprehensive planning program in fiscal year 1976.

In closing let me reiterate, good planning is that which is most effectively related to the daily process of governmental/private decisions affecting the public interest. Planning should be accountable in quantitative and qualitative terms for its expenditures. The final test of the value of planning is its support by the locally-elected chief executive and legislative body both financially and politically. The Federal Government should respect this local commitment. Thank you.

Deborah E. Reagan, administrator, La Salle County, Regional Planning Commission, Ottawa, Ill.:

This source of planning funds has enabled our county to establish a staffed planning agency providing planning services to our county government and to local governments with this money, our commission carries out its responsibilities to review subdivision plats and other developments with regional impact; assists with drafting land use and housing ordinances for the county and local municipalities; is developing a housing market analysis for the county; provides information, application forms, reviews and follows up on State and Federal grant applications for municipalities; is assisting communities to prepare for applications for community development block grants; held the first "class" for local lay planning commissioners; publishes a monthly newsletter; participates in health and law enforcement planning with regional planning agencies; establishes planning programs in local municipalities; is attempting to organize a central office for referral of county residents to the appropriate social services; plans for future economic development in our county; and many other projects.

Washington Post, January 7, 1975:

Not the least of the blessings which poured into Xenia after the tornado was volunteer planning talent from the Dayton-based Miami Valley Regional Plan-

ning Commission. The city . . . received $160,000 in economic recovery planning funds (701) from the U.S. Department of Housing and Urban Development. Whatever Xenia looks like in 10 years it will not have been the work of amateurs.

B. F. Paruleski, executive director, Green Bay Brown County, Planning Commission, Green Bay, Wis.:

The Green Bay Brown County Planning Commission has, over the past 8 years, participated in the "701" program. Over this span of time, the plan commission has developed and is implementing the following:

(1) Comprehensive planning program for Brown County, adopted by the Brown County Board of Supervisors in 1968.

(2) Brown County sewage and solid waste plan—1972.

(3) Open Space and outdoor recreation plan.

(4) Brown County library plan.

(5) Brown County housing study.

(6) Development of comprehensive plans for the city of DePere, and the towns of Denmark, Holland, and Hobart. These programs are a refinement of the Brown County comprehensive plan.

The success of these programs are too great to discuss in depth; however, I feel an overview is called for. In the case of the Brown County Comprehensive Plan, it has been used successfully since its adoption in guiding the growth of the county . . . The transportation element of the plan has, for all practical purposes, been implemented. Accomplishments include the construction of the new Mason Street Bridge approval of I–43 which provides the Green Bay area with an important link to the Milwaukee-Chicago market, construction of the Ashwaubernon-Allouez Bridge connecting I–43 on the east and Highway 41–141 on the west, and the purchase of the mass transit system.

Through the aid of the plan, the city of Green Bay has been able to develop, in conjunction with State and Federal agencies, a continuing transportation program which monitors and updates the Brown County transportation system. The park and open space element of the plan has also been successfully implemented. The county has been able to acquire and develop four major areas for park and recreation purposes. In addition, major wetlands and conservancy areas have been identified and preserved. The Brown County open space and outdoor recreation plan, which is a refinement of the open space element of the comprehensive plan, has been adopted by numerous communities in the county. As a result, these communities have been able to qualify for State and Federal open space funding.

The Brown County sewage and solid waste plan of 1972 has been adopted by the County Board. As a result, a county-wide solid waste authority has been created. At the present time, the authority is developing two landfill sites with the capabilities of eventually handling the waste from all 24 of the county municipalities. As for the waste water treatment, the Brown County Planning Commission is working with a committee studying the feasibility of creating a single waste water authority for the metropolitan area.

These are but a few of the recorded achievements; the point being that none of these, in my opinion, would have had the degree of success without sound planning made possible from funds under the "701" planning.

Michael Pittas, director, comprehensive planning, New York City Planning Commission:

We have been able to achieve positive improvements in our city because of our 701 grant. I'd like to mention just a few:

We have developed a tool—the mixed district—which enables us to resolve widespread and long-standing problems of stagnation and blight in areas housing both industrial and residential uses. The mixed use district can be tailored in its particulars to every neighborhood. We have applied it in three neighborhoods thus far, and are working on three more, thus contributing greatly to community stability while safeguarding the city's economic base.

We have developed strategies for encouraging the stability and growth of commercial subcenters and neighborhood retail areas in the context of the larger city economy. The strategy and new methods to implement it have constrained development of commercial facilities in outlying areas where they constitute a nuisance to the neighborhood and have a negative effect on existing business communities and the tax base.

To counteract the decline in manufacturing employment we have an ongoing program of industrial renewal which was enhanced last year by the formation of an industrial development agency to provide low-cost financing for new industrial plants.

Responding to traditional antipathy because of conflicting interests between medical institutions and residents, our health section developed innovative procedures formalizing the participation of local community residents in the redevelopment and expansion plans of medical institutions. The process was developed in cooperation with representatives of a variety of civic groups, public agencies, and health and hospital organizations. Cooperation is replacing antagonism.

We developed a program for the innovative re-use and partial renovation of underutilized school buildings to serve current program needs.

Sophisticated school enrollment projections have enabled the city to recognize temporary, rather than long-range, classroom needs, and thus create alternate school spaces, using existing commercial buildings and leasing school space in new housing. Enormous capital savings have resulted.

The determination of the feasibility of utilizing solid waste as a fuel supplement is being pursued.

The coordination and preparation of the city's annual draft capital budget and the five-year capital improvement program helps the city allocate its resources. In so doing, capital spending priorities are established, and all city agency requests are reviewed and evaluated consistent with city development policies.

We have been able to advance the continuing goal of increasing community participation in the planning and development of the capital budget. 701 moneys allowed us to enable citizen community planning boards to understand the intricacies of capital budget policies and processes and how to develop a rational set of community capital priorities.

There is no other source of available revenue, including the new community development block grants, to continue this vital comprehensive planning function, save the 701 program.

William Sullivan, mayor, Springfield, Mass.:

The city of Springfield is currently relying upon this (HUD 701 funding) to fund critical community development planning and management activities which are now underway. We recently hired an economic development specialist who is funded by this program. Even though this activity was envisioned back in the spring, given today's economic conditions, I think it is particularly pertinent.

Charles Montemayor, executive director, Dane County Regional Planning Commission, Madison, Wis.:

While local funds have matched HUD 701 grants at the ratio of $2 of local county taxes to every HUD dollar, the 701 planning assistance program has been absolutely essential to both the establishment and continuation of the commission's program. All of the activities mentioned in this report have been assisted by the 701 program.

CONTROLLING URBAN GROWTH AND DEVELOPMENT

The Commission prepared and adopted a land use plan which established a policy of containing urban growth and development in and around existing cities and villages. The plan encourages development within defined urban service districts and discourages development outside of these districts. The commission advised the State legislature on changes in the law regulating metropolitan sewage commissions so that extension of interceptor sewers conform to areawide plans. Costly interceptor sewers are no longer being built to chase new development, and the urban growth policy contained in the land use plan, is being implemented. By accommodating growth in designated areas that can best be served, pressure on agricultural and open space land is reduced thereby assisting in its preservation.

PARKS

The commission prepared and adopted a countywide plan for parks and open spaces which established the needs, objectives, policies, and specific plan of action for local governments and the State in Dane County. The county alone has acquired an additional 1,200 acres of land in accordance with the plan. This represents a rate of acquisition unprecedented for this unit of govern-

ment and has included areas which would very likely have been lost to development, if not identified and recommended in a plan such as this.

HOUSING

While the city of Madison has long had a housing agency, the remainder of the county was almost completely unassisted. The need for a county agency and program was recognized in the commission's "Housing Element" prepared under the 701 program. The commission subsequently worked for the establishment of a county housing authority to provide assistance to areas unserved and assist the smaller agencies.

The new county housing authority saw an opportunity in the proposed sale by the General Services Administration of the Capehart military housing project. The regional planning commission figured prominently in the development of a plan to acquire this surplus military housing in Sun Prairie for use by low and modest income families.

The regional planning commission reviewed and analyzed proposals by developers which facilitated the selection of a developer by the housing authority. To date, 77 of 154 units have been completely rehabilitated. Of this number, 44 have been sold at below market prices to low and modest income families, and 33 were being rented awaiting sale. All units are three or four bedroom.

A SINGLE SEWAGE TREATMENT PLANT INSTEAD OF TWO

In 1970, the Kegonsa Joint Sanitary District, representing lakeshore property owners in two towns in Dane County, indicated their intent to apply for Federal aid to construct a sewage treatment plant. In the commission's A-95 review, the regional planning commission identified the possibility of utilizing the city of Stoughton sewage treatment plant which was in need of renovation or replacement. Engineering consultants for the district proceeded to analyze the alternative, while the application was held in abeyance. In 1971, the district reapplied for essentially the same project, feeling that the problems connected with a joint arrangement with the city were too great and that the advantages to the district were greater with their own plant. After many meetings, the regional planning commission prepared a planning report, "Sewage Disposal Plan for the City of Stoughton and Joint Kegonsa Sanitary District, examining the issues involved which concluded that a single treatment plant serving both governmental units was the best and most cost-effective solution. This report has served as a basis for negotiations since that time.

The efforts since 1972 have been directed at finalizing plans and specifications, securing financing and contract negotiations between the two parties. The new Stoughton sewage treatment plant is awaiting grant approval, and the collection system for the Kegonsa Joint Sanitary District is currently undergoing A-95 review. Contract negotiations were the subject of much discussion in 1974, and nearly all differences have been resolved. It is expected that this project will be implemented in the next 2 years.

Although the efforts at getting agreement on a unified plant have been long and at times difficult, it is now generally recognized that the proposal is more economical to each local unit, and the Federal and State agencies that provide assistance, as well as being more environmentally sound.

AREAWIDE SOLID WASTE MANAGEMENT

Some of the most vexing government problems that local governments have been experiencing in recent years have been connected with solid waste disposal. New higher State standards and requirements, along with depletion of existing landfill sites, led Madison into efforts at developing new sites in surrounding rural areas, only to be blocked at every turn by angry neighbors who did not want the big city's trash.

In 1970, the Dane County Regional Planning Commission established a solid waste management citizen's advisory committee to review the status of solid waste management in Dane County. The committee's report, entitled "Solid Waste Disposal, Dane County, Wisconsin," recommended that Dane County, which previously had no solid waste management responsibilities, establish a solid waste management program to serve municipalities in the county, and that sanitary landfill be the preferred method of disposal.

were adopted by the Dane County Regional Planning Commission and the county board in 1971.

The county board subsequently requested the Dane County Regional Planning Commission and the Citizen's Advisory Committee to prepare a more specific program for implementing the earlier recommendations. In 1972, the recommended implementation program for solid waste management was completed and adopted by the Dane County Regional Planning Commission and the county board. The detailed recommendations of this report illustrated how Dane County could: (1) establish a disposal site; (2) create an administrative structure within county government for solid waste management; and (3) develop a long-range comprehensive solid waste management plan.

Dane County with the technical assistance of the regional planning commission, has subsequently undertaken detailed site investigations, has selected a site for a county sanitary landfill, and has submitted design plans and an environmental impact report on the site to the Wisconsin Department of Natural Resources for approval and licensing. In addition, the county created a Department of Public Works, to include responsibilities for solid waste management, which became operational in 1974. The staff of the Dane County Regional Planning Commission has continued to provide technical assistance to the county throughout these activities.

Finally, in late 1974, Dane County contracted with the Regional Planning Commission to prepare a comprehensive solid waste management plan which is expected to be completed early in 1976.

Helping to resolve a polarizing issue—the madison area technical college site selection.

During 1974, the Commission assisted the local vocational, technical, and adult education board (VTAE), in connection with a planned $30 million facilities expansion, and evaluated site proposals submitted. The Regional Planning Commission staff provided extensive information on location analysis, assisted in increasing public awareness of the location issue, and constructed the base of information and procedure leading to the location of the $30 million facility.

Tom C. Knickerbocker, AIP, project director, Texarkana Metro Plan:

We have been able to work on better ways to provide housing and other government services to our residents as a result of the support 701 has provided for our planning porgram.

No other source is available that allows planning on a metropolitan scale to increase intergovernmental economics of operation and the support we gain from our Council of Governments relies on 701 funding.

The provision of health services in Texarkana to serve northeast Texas, southwest Arkansas, southeast Oklahoma, and northwest Louisiana for instance, is supported by the ability of my office and the Ark-Tex COG receiving assistance for professional staff. We frankly, have no other source and this reduction will mortally wound us. As in the past, we smaller cities are the ones who are most drastically cut when such impoundment is ordered—and we have nowhere else to turn.

Hon. Robert W. Straub, Governor of Oregon:

The State Housing Division also has a well developed statewide planning program. This year we have:

Developed market analysis methodologies for lower income housing projects.

Examined the impact of rehabilitation efforts on lower income housing, and

Provided information and assistance to local governments.

Oregon has made good use of the 701 program in these efforts, and will continue to offer them support.

Donald J. Cosby, AIP, urban planner, Birmingham, Ala.:

At the present time our firm is working with the communities of Jasper and Pell City, utilizing funds from the comprehensive planning assistance program to prepare redevelopment plans for these towns which were heavily damaged by tornados. Without funds from the comprehensive planning assistance program this work would not be possible.

Robert Cox, AIP, Division of Community Services, Raleigh, N.C.:

Governor Holshouser has used 701 funds in a creative manner to support a revitalized State planning program which is an integral part of this State's policy planning-program budgeting process.

At the areawide level, the Triangle J Council of Governments, under the leadership of Pearson Stewart, is utilizing 701 assistance to support one of the more imaginative and effective planning and development operations in the Eastern part of the country. As you are probably aware, earlier this week HUD Assistant Secretary David Meeker visited Wake County and praised the work being accomplished there in developing an areawide housing and community development effort.

The State's division of community assistance has prepared a community development handbook entitled "Planning Management and the New Localism" which has been used by HUD as a model for implementing the new community development block grant program.

James M. Rose, director, Division of Planning Coordination, office of the Governor, Austin, Tex.:

Without these 701 funds many of these programs and projects would not exist—certainly not at their present level of effort and effectiveness.

State review and comment.—The A-95 State clearinghouse in the division of planning coordination operates with 701 planning funds. The clearinghouse insures the duplication of program efforts and needless government spending is avoided through careful review by affected agencies and governments of proposed projects. Since its inception, the State clearinghouse has reviewed programs totaling over $7.1 billion in Federal funds which have come into Texas. This review and comment process has enabled the State to monitor program expenditures and provide effective comment concerning the impact of these programs on economic, social, historical, and environmental resources throughout the State. The development and review of environmental impact statements is also a function partially funded by the 701 program. Federal agencies are required to prepare an environmental impact statement on projects having significant impact on the environment. Through the review and comment process, coordination is improved, project quality is enhanced, fewer dollars are spent, and inflation is reduced.

Energy resources planning.—Energy resources planning, vital to this State and to the Nation, is partially funded through the 701 program. The energy resources section of the Governor's division of planning coordination coordinates and monitors statewide energy-related activities, including collection, identification, analysis, and dissemination of information regarding energy resources development, energy research and development, production and distribution of energy resources, and conservation programs. The staff maintains communication with representatives from the public and private sector, with business and industry through retail and wholesale trade associations, with petroleum refineries and the petrochemical industry, and with private and public schools and universities. An energy data reporting system has been developed that gages the progress of energy conservation within the State agencies and State supported colleges and universities. This information is the basis for the monthly "Texas Energy Report" published by the division of planning coordination.

Water resources conservation and development.—A portion of the massive water planning effort in Texas is also supported with 701 funds. The State's Water Resources Conservation and Development Task Force, staffed by the Division, is developing social, economic, and environmental goals to be met by water development in Texas, is examining all feasible plans and proposals for water resource development required to meet the foreseeable needs of the State, and is outlining a statewide program for the coordinated action of all State, regional, and local government agencies to insure the timely implementation of water conservation projects. The task force has submitted a short-range water development plan to the Governor and the legislature for implementation. The task force will next identify the actions needed to obtain and maintain the appropriate Federal Government participation in water resource conservation and development in the State; identify the means of assuring efficient use of the State's available water resources, including multiple use of water and elimination or control of wasteful practices and conditions; and outline programs for future movement of developed surface water resources to areas of water need, including recommendations for methods of financing such movement.

Economic models.—HUD 701 funds were utilized to help develop statewide and regional economic models (input-output models) which help policymakers plan for economic growth in the many sectors of our State's economy. These models have recently been used extensively as tools to comparatively evaluate the economic impact of various energy conservation and energy development measures.

For instance, each of the alternative energy conservation measures was accurately evaluated based on the number of jobs which would be affected. During the past year, the models have also been used to assist communities in responding to major economic activities such as military base closings and the proposed construction of nuclear power generating stations. Use of the models allowed the communities to effectively plan for the changed manpower, education, housing, and taxing requirements.

Intergovernmental commission.—HUD 701 moneys also enabled the State to establish the Greater South Texas Cultural Basin Commission. This commission, which is composed of local, regional, State, and Federal representatives, has developed economic, education, health, and manpower programs specifically designed to meet the unique needs of a 40-county area of south Texas. For example, the commission helped improve the delivery of governmental services in such areas as bilingual education and migrant programs. And the commission assisted the city of Laredo in responding to the economic setback resulting from the closing of the Laredo Air Force Base. The commission also is participating in the development of a transportation plan for the region which will assist in resolving rate inequities and thereby help stimulate desirable economic growth in south Texas.

Technical assistance to regional councils.—The Division also utilizes HUD 701 funds to carry out its State statutory responsibility to provide technical assistance and information to regional councils (areawide planning agencies), in addition to administering the State planning assistance grant program which annually provides regional councils with $1.7 million for support of comprehensive planning activities. In providing this technical assistance, the Division sponsors meetings for regional council staffs and an annual Governor's conference. The meetings enable regional council staffs and local elected officials to interact with State and Federal program administrators. The result is that regional councils, and the local elected officials which they serve, remain current with respect to new and changing State and Federal programs. New developments in State and Federal legislation are also quickly and effectively communicated to regional councils and local governments. Informed local officials enable local governments to more effectively budget for local programs and services. And interaction with State and Federal program officials enables local governments to influence the State and Federal assistance programs. This improved coordination leads to more efficient delivery of programs and services at the local level.

Management tools for regional councils.—Utilizing 701 funds the Division has had management tools developed for regional councils. The tools improve the capabilities of regional councils to effectively manage State and Federal programs on behalf of local governments and to conduct comprehensive planning and technical assistance programs designed to benefit local governments. Better management of regional council programs results in increased efficiency in the delivery of programs and services to all Texans. Perhaps the most important management tool yet developed is the management information control system (MICS), which provides regional councils with a uniform program management, reporting, accounting, and auditing system. With this system, regional councils can better monitor and analyze the programs for which they are responsible. In addition, regional councils are able to report program information to State and Federal agencies in a more efficient and timely manner. As a result of the implementation of MICS, State and Federal programs can now be more effectively monitored at the State and regional levels, resulting in improved management of State and Federal assistance programs and reduced administrative costs associated with those programs.

HUD 701 funds have also been utilized in developing the performance effectiveness program (PEP), a system designed to assist State and Federal agencies and local governments in evaluating the programs conducted by regional councils. As an evaluation program, PEP will contribute significantly to improve the management of regional council programs by letting council staff, board of directors, and member governments know how each of the programs conducted by the regional council "stacks up."

Regional council technical assistance.—Using 701 funds regional councils provide technical assistance to their member governments. Regional councils assist—free of charge—local governments in preparing applications for Federal and State program dollars. Without these services, local governments would have to buy these services in the private sector. The types of applications prepared by regional councils for local governments include criminal justice, water and

sewer, community development block grant, rural development, park development, housing, water treatment facilities, and economic development.

HUD 701 funds have enabled the Nortex Regional Planning Commission—Wichita Falls—to assist Hardeman County and the city of Quanah in consolidating the police and sheriff departments. Consolidation has led to the more efficient, economical delivery of services to the public.

The Golden Crescent Council of Governments—Victoria—is coordinating the development of plans to increase tourism in the region. Here local governments are cooperating to develop a common approach to tourism development thereby expanding the economic benefits to the region from tourism dollars.

Many regional councils are currently providing engineering services to Texas communities. Under this program, regional councils employ qualified civil engineers to assist cities in estimating the cost of capital improvements and in developing plans for park development which are a prerequisite to receiving Federal and State funds. In one case, a civil engineer assisted a west Texas city in conducting a management study of the city's natural gas line. Engineering programs were identified, State resources were mobilized with the assistance of the regional council, and the city was able to make needed improvements in the gas line. Other regional councils have assisted cities in developing plans for new water treatment facilities and water and sewer improvements.

Joint usage of computer facilities has become a topic of increasing interest to local governments in Texas. The Lower Rio Grande Valley Development Council, for example, has coordinated the establishment of a regional computer center serving local governments in the area. Through this facility, local governments are able to acquire data processing services at a much lower cost than would have been possible if the services had been purchased individually.

HUD 701 funds are used by regional councils to finance training sessions for local government officials. Areas of training include development of local government personnel systems, compliance with Federal wage and hour and equal opportunity regulations, development of affirmative action plans, establishment of workmen's compensation plans for local government employees, solid waste management, and housing development. Improved training programs have improved the management capacities of local governments.

HUD 701 funds have also been utilized to fund work study programs through the regional councils. Under this program, minority students have received internships in city and county government, and benefited from actual experience in many areas of local government. Through this program cities and counties have received good workers providing useful services. Upon graduation many of these students elect to go into public service.

Housing.—HUD 701 funds finance important programs in the area of housing. Regional councils have performed housing surveys to identify dilapidated and under-utilized housing stock in Texas communities. These surveys have resulted in recommendations to local governments regarding programs to renovate existing housing units as well as programs to build new housing units. Many of these programs have been implemented. Regional councils have also assisted Texas communities in utilizing the R. L. Polk housing data which was purchased by the State with the aid of HUD 701 funds. This data provides important information on the condition of housing in a given area of a city. The data also includes a current demographic analysis which enables planners to better allocate city resources and services to meet existing needs. Regional councils have also assisted in the development of housing authorities.

Areawide planning.—Regional councils have used HUD 701 funds in developing regional water and sewer plans. These plans were a prerequisite to awarding Federal funds to cities for developing water and sewer systems. Currently, these plans are being used by local governments in Texas to guide the development of water and sewer systems in meeting the demands produced by increasing urban populations. Coordinated development of water and sewer systems has eliminated wasteful duplication while insuring that Texas cities will have adequate systems to meet projected demands. Effective planning has therefore been translated into effective management of public resources and increased efficiency in the delivery of services.

Regional councils in the coastal areas of Texas have been especially active in disaster preparedness planning. Such plans have been developed by the Coastal Bend Council of Governments—Corpus Christi—the Golden Crescent Council of Governments—Victoria—and the Lower Rio Grande Valley Development Coun-

cil. The disaster plans provide for a coordinated response by local governments to natural disasters such as hurricanes. The plans include provisions for coordinating communications with various Government agencies, shelter for storm victims, delivery of food supplies, and other emergency services. These plans will go far toward reducing the loss of life and property associated with natural disasters. In conjunction with this effort, regional councils have assisted cities and counties in complying with the terms of Federal flood insurance programs. Regional councils have prepared sample ordinances for cities and counties and provided advice on flood plain management and delineation.

As an example of the type of assistance provided by regional councils in developing firefighting plans, the Concho Valley Council of Governments—San Angelo—has developed a comprehensive plan which is being used by local governments to coordinate efforts to fight fires in the sparsely populated areas of west Texas. The plan provides for coordinating the use of firefighting equipment, identifies radio communications, and establishes priorities in responding to major fires.

Areawide review and comments.—Regional councils in Texas are charged with A-95 review and comment responsibilities at the regional level. Review and comment provides local governments with an opportunity to influence Federal funding decisions and provides for the coordinated and efficient allocation of public resources to meet common public problems. Using the review and comment process, regional councils, as areawide clearinghouses, have identified and avoided costly program duplication. In one case, the review and comment process identified adverse effects to a municipal water supply which would have been caused by the implementation of a proposed highway project. It is not uncommon in social service programs to find that service delivery systems overlap. Regional councils have used the review and comment process to identify and eliminate program overlap, thereby avoiding wasteful duplication in the delivery of health, manpower development, and other social services.

Conclusion.—The HUD 701 program helps provide a number of important programs and services to State and local governments and through them to the citizens of Texas. The program is in the front line of inflation fighters since it helps governments better plan for the future and better manage existing resources. Deferring 50 percent of the 701 funds, coupled with inflation, will necessitate a drastic curtailment of the previously described programs and services. At the State level, important planning, coordination, and technical assistance services would have to be reduced. At the areawide level, the entire fabric of regional planning in Texas would be disrupted and regional councils would lose the necessary flexibility to respond effectively to the individual needs of local governments and to assist the State and Federal Governments in program planning and implementation. At the local level, the 701 program constitutes the only major source of general planning and management assistance, without which local governments would be compelled to bear the full burden of costs for this planning and management function.

Melvin H. Takaki, D.D.S., President, City Council, Pueblo, Colo.:

The HUD 701 program has been operational in Pueblo for over 15 years. During this time, it has substantially assisted local decisionmakers in their deliberations. It has provided for a planning and management mechanism, assisting both the city and the county of Pueblo, which provides substantial assistance to the functions of local government. It also provides for the federally mandated Office of Management and Budget A-95 review procedures, which, in several instances, have been of significant importance locally because of competing demands and conflicting programs.

The 701 support provided management assistance, based upon the long-standing planning function, for the community development program in the city of Pueblo. The 701 funding significantly assisted over the long term for Pueblo's being the first city in Colorado to obtain release of its community development allocation on March 5, 1974.

Tom Bradley, Mayor, City of Los Angeles, Calif.:

We have developed and operate an urban information system as part of our 701 program funding that can be transferred to other cities and communities. In fact, negotiations are presently underway with at least three other cities and two counties to effect this transfer. Failure to disapprove the deferral of 701 funds would, of course, seriously impede such negotiations. Other considerations are that many highly important studies and activities directly related to the

city's social, economic, and physical problems will have to be delayed or terminated. I refer particularly to problems of housing, health, unemployment for the poor, with special emphasis on minorities and the elderly.

James O. Nicholson, City Manager, Medford, Mass.:

We in Medford are in our third year of a successful 701 program that has become quite responsive to local development priorities. 701 continued assistance is needed if we are to properly coordinate Community Development Act block grant priorities. Our 701 grant has been instrumental in planning for joint development of an MBTA transit station and undertaking an economic feasibility study of Medford Square. The stagnating economy makes it essential that we continue to encourage well-planned development in the Boston metropolitan area. 701 funding for Medford, other Massachusetts municipalities, and regional agencies is central to that effort.

George W. Rusch, executive director, central Upper Peninsula, planning and development region, Escanaba, Mich.:

The 701 program has been an important, though not large, source of funding for CUPPAD since 1970. It has enabled us to prepare plans and implementation programs for recreation, water, and wastewater systems, solid waste management, housing, and to provide planning and management assistance to local governmental units. From these efforts has developed a regional management system designed to allow objective decisionmaking in the utilization of limited resources.

These planning activities have accelerated the flow of State and Federal grants and loans to the communities of the region because planning requirements had been met in a timely fashion, and because a factual basis for evaluating alternative courses of action had been provided to the local elected officials which quickened the decisionmaking process.

CUPPAD has been a recipient of HUD "701" funds annually since 1970. Initial efforts were directed toward the timely development and completion of the comprehensive and functional area-wide plans required by the HUD APO–APJ certification process. We believe it is apparent that the small amounts of planning funds received have resulted in achieving concrete objectives greatly disproportionate to the investment.

Milton H. Miller, chairman, Baltimore Regional Planning Council, Baltimore, Md.:

In the past, the required planning for 701 included housing, sewer and water, open space, and storm drains. The Housing and Community Development Act of 1974 added two new requirements: land use and historic preservation planning. These additional requirements, together with the drastic cut in funds will result in severe reduction or elimination of other planning activities, which would include:

Harbor planning.—Future plans were for revision and implementation of the harbor plan, which was required by the Department of the Interior for issuing dredge and fill permits (Baltimore being the only port in the United States having such a requirement); necessary studies for the disposal of dredging spoils; and the development of plans for the restoration and revitalization of the shoreline area and its buildings. Planning for the port area is a natural extension to studies made by the council on the Chesapeake shoreline and is crucial to ensure the vitality of the harbor as Maryland's economic center and as a recreational area.

Open space planning.—In October, the council set priorities for implementing several recommendations contained in an analysis of open space needs developed by the Department of Interior's Bureau of Outdoor Recreation. Included in this priority list are the Five Forts Development Plan (which would be completed as part of our bicentennial activities), construction of a recreational center on the Hart and Miller Island Complex, and the development of more recreational facilities for inner city residents of Baltimore. This work would have to be drastically impaired or discontinued.

911 Emergency Telephone System.—The council, in cooperation with area police and fire departments, the recently established emergency medical services system and other State agencies has been developing plans for a 911 system in the Baltimore region. Without a cut in funds, the system would be operational in early 1976.

Special studies.—Past examples of special studies conducted by the council include our work with you on the Fort Holabird plan and our cultural facilities work.

As a metropolitan clearinghouse under OMB's Circular A-95, we are responsible for the review of 155 categories of projects receiving Federal moneys (this number reflects an increase of 55 programs since January, 1974). Last year we reviewed 257 such projects totaling $370,034,000 in Federal, State, and local dollars. So far this year, we have reviewed more than 350 projects, worth nearly $600,000,000 in Federal, State, and local funds. This work demands a competent, professional staff engaged in planning activities which are comprehensive in nature.

Mr. SHIPLEY. Mr. McClure, what is the singlemost problem that you find that the counties have? I know you are here testifying on the planning funds but what is the most important single problem that the counties have?

Mr. MCCLURE. I think I can probably speak better for Salt Lake County than I can for the other 3,100 counties.

Mr. Murphy is here from the NACo staff and would probably be closer associated with the other counties and can give you a better insight into their problems.

Mr. SHIPLEY. Mr. Murphy, can you tell us?

Is it one specific area?

Mr. MURPHY. I suspect it is a fiscal problem which affects every operation of the county government.

Mr. SHIPLEY. What besides inflation has brought the financial problems about?

Mr. MURPHY. Certainly the recession, the other end because it has caused a shortfall in revenues for operating activities undertaken by county governments across the board.

Mr. SHIPLEY. How much impact has EPA had on the increased cost of the various problems that the counties have such as on highways, et cetera?

Mr. MURPHY. The delay in release of the EPA water pollution funds as well as the highway trust funds have caused a severe adverse impact. Of course, that time delay has increased the cost of projects which are not now underway, with the release of those funds by the Congress. We are hopeful that we will be able to go ahead although under added increased costs to carry out those activities. Perhaps Mrs. Packard, who is chairman of the board of Fairfax County Advisers would like to add to that.

Mr. MCCLURE. Mr. Chairman, Mr. Curtis Hall is here this morning. I don't believe he was introduced.

Mr. HALL. I am a member of the board of the city manager and also mayor of the city of East Cleveland, Ohio.

Mr. TALCOTT. I would like to ask Mr. McClure a question.

You are suggesting that we appropriate $250 million more than the budget. Do you have any suggestions about what other agencies or departments of Government we might take that from?

Mr. MCCLURE. I am sure you are better equipped to determine where that money should come from than I am.

Mr. TALCOTT. Probably the President is, too, but you are second-guessing him. So I suppose you have some ideas about it.

Mr. MCCLURE. Again, I think it is a matter of determination of priorities which every county and State and nation has to determine where their moneys are going to be spent. Naturally if I had the time and had the budget before me, I would probably sit here and give you some recommendations of where I think that money should be taken

from. But I do feel the community development funds are very essential because they deal with some of the real problems that we are facing in our community. Those problems are blight and housing and taking care of some of our needy people.

I feel you just cannot ignore that problem.

Mr. TALCOTT. You don't imply that we are ignoring the problem, I hope.

Mr. MCCLURE. No.

Mr. TALCOTT. Then please do not say it. I think that counties are a very essential part of America and they ought to feel some responsibility to the total.

If you are suggesting we add to our deficit which will be your deficit too, then your children and grandchildren are going to have to pay that deficit and you ought to be concerned about them as well as the people living in your communities now.

You ought to have some idea of where we should take that $250 million from.

Mr. MCCLURE. As I have said, I have not had the chance to go over the budget as I am sure you gentlemen have. Given that opportunity, I could present some recommendations to you. I still feel that the housing and community development funds because of some of the real serious problems in our communities, are things that should be given top priority.

We are giving that top priority in Salt Lake County and have appropriated some of our local funds to go to those services.

Mr. TALCOTT. If the counties gave it top priority, you would not be here begging like you are now.

Mr. MCCLURE. I do not think that is the case. In Salt Lake County with the amount of revenues raised from the tax levy, it was about $54 million for fiscal year 1975. However, the needs as determined by the various departments within Salt Lake County totaled around $75 million.

Mr. TALCOTT. So you want the people around the rest of the country to pay the needs of Salt Lake City?

Mr. MCCLURE. Not necessarily.

It appears that Congress in the past has been funding the various problems throughout the Nation and I feel Salt Lake County should have its fair share.

Mr. TALCOTT. I think you should go back to the NACo officials and suggest to them that cooperation between the State, county, and local governments should be made to work. That system works better by cooperation rather than fault-finding.

Mr. MCCLURE. I do not think anybody is appearing to criticize. We are here to make a recommendation.

Mr. TALCOTT. I get the impression of that throughout your whole statement. I get the impression that it is a critical statement.

Mr. MCCLURE. I don't think it is. I think I should have the right to make a recommendation and that is what I am making. If that appears critical, I have to apologize to the members of the committee but I think I have the right to make that recommendation.

Mr. TALCOTT. To me it does and I appreciate the apology.

Mr. SHIPLEY. Mrs. Packard, would you like to enlighten us?

Mrs. PACKARD. Thank you.

As you said, I am president of the Washington Metropolitan Council of Governments. I am also chairman of the Board of Supervisors of Fairfax County which is one of the larger urban counties in the United States. With over a half million population, we have greater population than five States. We have a greater population than Salt Lake City, Akron, some of the major cities.

We face most of the urban and urbanizing problems of the major cities, as many of the urban counties do, which I think sometimes get lost in Congress, with those who may not be as familiar with this situation.

When you say "cities" everybody knows what you are talking about. But when you say "counties" everybody has different ideas. We have submitted a statement for the National Association of Regional Counties.

I will not read that, but I have submitted it for the record.

I would like to speak specifically to the full funding of the 701 program. In addition, of course, to associating myself to Mr. McClure's comments on the community development funds because those have been extremely helpful to Fairfax County and will continue to be in meeting some of the pressing needs that we have.

But the 701 program, I would like to speak to briefly what it has done and what it has helped us accomplish here in the Washington metropolitan area. We have established a regional formula for the distribution of Federal housing funds throughtout the area on a fair share basis.

I am very sorry to say, however, that we have come into HUD with a fair share allocation of the entire metropolitan region, speaking of three States, Maryland, Virginia, and the District, the metropolitan area, the SMSA, with a fair share allocation for all of us, asking for additional funds to meet the additional needs that Mr. Fauntroy spoke to, and have been turned down flat for any additional funds. So what we are getting is a teaspoonful of help. COG has developed and put into effect a system for declaring air pollution alerts which has been invaluable and many of you who have suffered through a Washington summer know.

We have prepared standby areawide procedures for knowledge and use during summer power cutbacks and threatened winter shortages of natural gas for heating. We have completed cooperative library lending arrangements in which a book available at any library in the area for your use as well as making a universal library code that is available in any jurisdiction as it is in your own.

We have established a new program for determining the area-wide energy uses and requirements in addition.

I think the Washington COG is probably one of the most advanced in true regional cooperation. That is doubly difficult because we are not only dealing with one State but we are dealing with the Federal Government which sometimes tends to complicate matters a little more.

I would like to call to your attention one item in Fairfax County that is a major concern to us. We have a feeling that HUD is thwarting the intent of Congress in the granting of the 701 funds.

As you know, it was broadened to include urban counties recently which is one of our major concerns. The urban counties are often not

included in legislation which is written for cities when we have the same problems.

Fairfax County had applied for $250,000 to assist in our comprehensive planning program that is underway at this point in Fairfax County. We were turned down for 701 funds by HUD because we had not received any 701 planning funds before which seems to me a rather arbitrary reason for not getting them.

It seemed that 25 urban counties were eligible for 701(a) funds and only 10 of them last year received funds via the States.

Well, now we are being penalized because Virginia, for whatever reason, did not decide to do any funding. HUD decided to fund directly only counties which had received 701 funds in 1973 and 1974 which turned out surprisingly to be 10 out of 25.

We feel that if urban counties were written into the legislation that it was the congressional intent they receive the funding.

Mr. TALCOTT. How much did you receive in 1972 and 1971?

Mrs. PACKARD. In these funds we did not. I think urban counties were written into the 701 funds.

Mr. TALCOTT. Some counties received an inordinate amount earlier and that was one of the reasons they were not permitted to receive additional funds in 1975 when they were permitted to in 1973 and 1974.

Mrs. PACKARD. It is my understanding, and John could well correct me, that the urban counties were written into the comprehensive planning assistance relatively recently so we are only talking about 1973 and 1974.

Mr. MURPHY. Since enactment of the 1974 act which established section 701 counties of any size were required to go to the State for 701 assistance and funded out of the local portion of 701. As a result of the new act urban counties were authorized under title 4 of the comprehensive planning portion for reply directly to HUD for 701 assistance. That recognized that in the past they were not getting a sufficient level of 701 assistance and in many cases they were not receiving any at all, having to go through the State and recognizing that these major urban counties had to go through these.

Mrs. PACKARD. It is my understanding that they only selected counties that we refused funds in 1973 and 1974. That was the criteria. Interestingly enough HUD decided they only had enough funds for 10 urban counties and interestingly enough there were only 10 counties that were funded.

So I just call this to your attention. I feel the will of Congress is being thwarted through administrative procedures.

Mr. SHIPLEY. How does the per capita income of Fairfax County rate nationally, do you know?

Mrs. PACKARD. It is one of the highest.

Mr. SHIPLEY. I used to live there but I moved.

Mrs. PACKARD. You better come back. We just slightly lowered the taxes.

Mr. SHIPLEY. Any questions?

Mr. STOKES. I just want to welcome Mr. Curtis Hall who is the most able and efficient city manager of East Cleveland, Ohio, which falls within my district. I want to welcome him here this morning.

Mr. TALCOTT. I would like to welcome him.

Mrs. Packard, Fairfax is an affluent county. I know the Federal Government complicates your county very much.

Mrs. PACKARD. They certainly did. But they do not want to compensate us.

Mr. TALCOTT. The rich counties come in begging——

Mrs. PACKARD. Excuse me, you have used that term twice and I want to state that that is our money we are talking about.

Mr. TALCOTT. The rich counties beg the most loudly and the poor counties need representation here and they don't get it through NACo.

Mrs. PACKARD. Yes, they do. As a member who has been deeply involved in NACo for several years, I know they do.

Mr. TALCOTT. Send a representative of some poor county up here one time.

Mr. SHIPLEY. I have one coming in tomorrow.

Mr. TALCOTT. Not with NACo.

Mr. TRAXLER. I'm pleased you are here today. The Constitution guarantees to the citizens of the United States the right to petition their Government. Don't ever allow anybody to deny us that right. Certainly as long as I am a member of this committee I want to listen to you and hear what you have to say. I think it is terribly important that we appreciate what is going on out there at the end of the line. We have the high muckwucks starting with the Cabinet level people coming in and they bring 75 people with them. We cannot get them all in the room. We keep them in the ante room and they spill out into the hall. As we hear them describe the programs, they are working perfectly. I am grateful that you are here telling us what your experiences are.

I don't think that citizens who feel aggrieved and want to petition their Government ought to be denied that opportunity. That is the reason for these hearings. You are welcome here and we appreciate your assistance. I think as public officials you recognize that we have many of the same problems you have, that is, we have greater needs and greater demands than we can fulfill. It is a question of apportioning the pie. It is a task that none of us enjoy.

We know we will make mistakes and perhaps put emphasis in an area where it should not be and we may forget someone.

Always there are greater needs than we can possibly fulfill. For many of us on the committee it is heartbreaking to understand and appreciate that. Maybe you can help us.

Maybe what you have told us today can help us as we make these difficult decisions and maybe even help us to understand that maybe the enemy of the people is the bureaucracy. Certainly it is the enemy of the Congress.

Mr. SHILEY. We will now hear from Curtis Hall, city manager, East Cleveland, Ohio.

Mrs. PACKARD. Mr. Chairman, if you will excuse me, I have a COG meeting at 12 o'clock and since I am president I really feel I should be there.

Mr. SHIPLEY. Certainly you may be excused.

Mr. HALL. Mr. Chairman and members of the committee, I appreciate the opportunity to come here. I want to describe some of the success I feel NACo has achieved for the use of 701 funds in the greater Cleveland area.

It has been very instrumental in helping them to develop and work with the surrounding communities and comprehensive waste treatment planning for the entire area.

As you know, Cuyoga County and the subsequent counties are greatly populated and it is a growing area.

Consequently because of being in this plan they will be participating in the 208 program which is water pollution control along with the waste treatment. They have instituted a program in trying to work in the general area of attitudinal changes as far as equal opportunity in open housing in the area.

Now true enough we have had very little success in this area but at least through 701 we have been able to act as a coordinating interfacing kind of agency. The other area or success is that we have used 701 funds also to try and get elected local officials coming from diverse communities and cultural backgrounds to work on areawide problems, air pollution, solid waste, land use, housing, regional water, transit, all of these.

I won't go into the details of that agency. I would like to deal with how the city of East Cleveland which I like to refer to as an inner city suburb, has used 701. The amount we have received has been minimal but I feel the effect has been great.

In the past 2 years I feel we received approximately $40,000 of 701 funds. Because of the initial grant of those funds we were able to do some comprehensive planning in anticipation and tying it in with anticipated funds from community development.

The way we used these funds we were able to bring a staff person on board in the city to take charge of what we called a comprehensive management approach of the entire city. This was not just in-house. It dealt with taking a look at our internal structure, how we functioned, we initiated a comprehensive zoning review of the entire city.

The city of East Cleveland, as I said, is an inner city suburb, one of the main streets of the county runs through the middle. It is an old streetcar community built in the 1930's. So I do not have to tell you about its physical condition. By utilizing these funds and some we were able to get through a private foundation, we tied the two together and came up with a comprehensive four-part study for the city which did zoning, land use, housing stock and internal management.

Now we used the information we got from the management study as the basis of developing our community development block grant. Without that money I don't feel we would have been able to, you might say, get the jump. We were one of the unique kind of small cities. Our population is 39,600, but we had been in NDP so we had a hold harmless provision. Congressman Talcott raised the question of priorities, what would you do if you had to lose community development. I think East Cleveland would still be trying to put its community development package together but because we were able to get a small but important grant from the State when Congress authorized and the President signed the bill in August we had our basic statistics together and we were able to move forward.

Consequently we were the second city in the State of Ohio to receive our funding.

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HUD area officials approximately 10 days ago presented us with the letter from the President, et cetera. I am in thorough support of the continued use of 701. We have another pending small grant with which we hope to do a comprehensive study in terms of coming up with some long-range projections as far as revitalization economically of our small community.

We feel it has potential. Once again the question comes up, why not just community development money? A decision was made by elected officials, that we wanted to give top priority for community development money for going into what we call capital kinds of things, kinds of things that are visible, new streets, upgrading the lighting system, better water system, making the city cleaner and more attractive, not only to the citizens, but potential businessmen. So I feel the 701 funds as far as my small local city have been very instrumental in giving us a leg up.

The same way by working with NACo we have ben able to tie in with the overall planning in the entire region.

I will be happy to answer any questions you might have.

Mr. SHIPLEY. Mr. Talcott.

Mr. TALCOTT. I have no questions. I'm glad to see you are using the funds for comprehensive planning. That is what they were for.

Mr. HALL. That was our initial decision, to use them as a supplement to our local funds and whatever other funds. I feel that many communities have done this. I feel NACo has done this in trying to work with the various communities in Cuyhoga, Summit, and Diego County. Therefore, I wholeheartedly hope that this committee will look favorably in terms of the continuation of those funds.

Mr. STOKES. Mr. Chairman, I would like to commend the gentleman from my congressional district for his excellent testimony here this morning.

I have personal knowledge of the highly efficient operation he conducts in East Cleveland and I am very proud of the fact that we have a man of this competence and ability to come before this committee this morning.

Mr. SHIPLEY. Thank you, Mr. Stokes.

Mr. Hall, let me say to you that you have a very outspoken advocate for Cleveland. I don't know whether he walks quietly but he certainly carries a big stick.

We thank you for your statement.

We will now hear from Mr. Mike Carroll, vice mayor of Indianapolis.

Proceed, please.

Mr. CARROLL. Thank you, Mr. Chairman.

I am deputy mayor of Indianapolis, Ind.

I am speaking in behalf of the American Institute of Planners in cooperation with the other officials who testified here in behalf of supporting the full authorization of $150 million annually in fiscal year 1976 for comprehensive planning programs.

I would like to focus in basically on the specific improvements that the 701 money has been utilized to support in Indianapolis and Marion County to give you pragmatic examples of the value of this particular program in the context of local government. I would like to focus basically upon not only its support for continued comprehensive long-

range planning, but also its support from the standpoint of the local chief elected official as well as the policymakers in local government and the day-to-day decisionmaking process, the relationship between planning and the implementation of programs, the expenditure of private and public funds.

In addition, the kinds of management and productivity improvements that this kind of money has been used to support in local governments which I think is very important in terms of the problems of inflation, the problems of the local economic situation we face at the local level and that you also face at the Federal level. We have in the city of Indianapolis spent what amounts to less than one-tenth of 1 percent of our city budget on an annual basis for 701 comprehensive planning money. We have a planning budget on an annual basis that is approximately $1.1 to $1.2 million of which 701 supports about 12 percent of that.

We have operated since 1970 and 1971 under the integrated grant administration concept which allows us locally, and there have been 27 cities and States that have participated nationally, it allows us to combine and operate in a more functional manner with the 701 comprehensive planning assistance to try to bring these things together in a manageable and more coordinated fashion at the local level. So a lot of the approximately $600,000 to $700,000 that we spend annually from Federal resources on planning, 701 amounts to $120,000 to $150,000 of that resource we use at the local level for planning.

We have been fortunate in the utilizing of the integrated grant administration program primarily because it carries out the intent of Congress when it passed the Joint Funding Simplification Act of 1974. It has allowed us to save $125,000 to $150,000 a year by bringing together six to eight separately Federally funded programs and allows us to use one application to do that, allowing us to consolidate the accounting, auditing, legal and work program management functions of comprehensive planning at the local level.

I would like at this point to submit into the record two examples of an evaluation of our local planning program in Indianapolis and Marion County which we undertake each year with the Federal and State government.

Mr. SHIPLEY. Why don't you submit those to the committee? We have been criticized for our printing bill so we have to weigh carefully what we put in the record.

You may proceed.

Mr. CARROLL. I would like to focus on four examples that highlight the use of our comprehensive planning money in terms of decision money. We entered into this through an act of the State legislature in 1970. Prior to that point we utilized 701 comprehensive planning assistance funds to think through the organizational and management structure of what local government would be like after consolidation, did a number of studies related to annexation, studies related to reorganization and governmental efficiency that provided the basis for the passage of State legislation that allowed us to consolidate local government. We have utilized 701 funds in the area to influence State and local legislation to create not for profit entities to carry out parts of our public housing program, to create our public transit corporation and other vehicles that carried out major functions of local government.

We have used the 701 planning program basically as seed money where no other money has been available to explore the opportunity for applying for Federal assistance programs that would allow us to carry out service delivery functions, to increase our capacity to deliver municipal services. We have been able to use that money to prepare Federal grant-in-aid applications and underwrite what I would call front-end costs or staff costs that are required to be initiated before you get into a full-blown program so it has assisted our community very substantially in that capacity.

We have strengthened out city budget process by the use of comprehensive planning funds through the development over the last 4 years of an effective capital improvement process in the local government.

I brought examples of some of the reports we have generated which are only the physical representations of all the work that has gone into it that show you the kind of use these kinds of documents get in the local government.

The capital improvement process I mentioned has been submitted to our city council only last week and represents the pulling together of over $138 million worth of capital improvements that will be basically proposed investments in calendar year 1976 in Indianapolis and Marion County. We did this through the use of 701 comprehensive planning funds, through the use of pulling together all the department heads in local governments, projecting expenditures, assessing what the impact on bonded indebtedness would be and trying in a better fashion to coordinate those major public facilities investments with the long-range comprehensive planning in the community.

We have also used this money to prepare our program community development application which we submitted in February and have recently received approval from the area office and will be in full scale in June.

Without the local planning money we would not be as far in the process as we are locally.

I bring you two quick examples of a very effective process we found locally in terms of the use of 701 planning moneys. That is neighborhood and sub-area planning. Through the use of 701 funds back as far as 1967 and 1968, Indianapolis and Marion County prepared what was the first comprehensive neighborhood plan using 701 funds in the Nation called our Highland Brookside plan.

Mr. SHIPLEY. Let me interrupt if I may. Certainly we want to give everybody the time to testify and take all the time they want, but some of the witnesses are going to be here until 5 or 6 o'clock tonight if we don't go ahead and expedite it a little.

Mr. CARROLL. I will attempt to conclude in the next 2 or 3 minutes.

Mr. SHIPLEY. We have already included your statement in the record. Why don't we proceed to the questions?

Any questions, Mr. Talcott?

Mr. TALCOTT. I have one question.

I appreciate the time problem: 701 was originally enacted to help the smaller communities with their comprehensive planning. It is just like a lot of other programs designed to help rural America, the small cities and towns, once it is proved to be workable and successful the big cities all but take it over.

I think we realize that OMB has broadened the use of 701 funds for management improvement, although some of us wonder why OMB would make that judgment. Each witness tells us how important 701 is, but we must set priorities. So my question is, if 701 has had such a high priority with you, what Federal funds do you receive that have a low enough priority that you would do without them in place of 701 funds?

If anybody else, the lady from Fairfax, or the gentleman from Salt Lake, or the gentleman from Cleveland would like to answer that I would be pleased to know. I think it is information we need very desperately.

Mr. CARROLL. I would like to respond by saying we have utilized our 701 money to attempt to attract other Federal resources to support those aspects of the planning.

Mr. TALCOTT. Recognizing that you want the 701, what Federal funds are less important that you would be willing to forego them to keep your 701 funds?

Mr. CARROLL. Sir, I would have to be given a very specific example of a selection among priorities. Frankly, there are some aspects of functional planning programs that are being perpetrated by Congress over the years to do various sorts of individualized narrowly focused planning in the area of transportation, water quality, land use, economic development, that require a much higher degree of coordination.

What I am saying to you today is that through the integrated grant administration program in Indianapolis we have been able to combine the best aspects of all of those programs and save money at the same time by improving on management as opposed to utilizing additional funds that we might otherwise have to take advantage of.

Mr. TALCOTT. If any of the other people want to try to answer that question I would be delighted.

Where does planning rank in the city's decision in using funds?

Mr. CARROLL. Planning ranks very highly as I have indicated in our statement. In Indianapolis it has affected every major capital investment decision made.

Mr. TALCOTT. So planning is one of your highest priorities in the city. That is where you first put your funds?

Mr. CARROLL. It is a very high priority.

Mr. TALCOTT. Thank you very much.

Mr. SHIPLEY. Are there any other questions?

Mr. Baucus.

Mr. BAUCUS. Mr. Carroll, why did the administration not request any 701 funds for 1976?

Mr. CARROLL. I'm here to indicate to you that we are concerned about the administration's position on not requesting the full amount of 701 funding as authorized in the act.

Mr. BAUCUS. Why did the administration not request the money?

Mr. CARROLL. I am not sure why the administration did not request the full authorization. There was some earlier testimony about the potential duplication of the act moneys. I think Assistant Secretary Meeker had been here earlier to try to clarify the fact that nine eligible communities were different. As I say, I am not clear why the administration did not request full funding.

The public groups here are in support of full funding because of the direct benefits 701 has had at the local level.

Mr. BAUCUS. Do you or people in your situation directly ask the administration why they did not request the full authorization?

Mr. CARROLL. We did make inquiries to our Congressional Representatives and through Senatorial offices to show our concern.

Mr. BAUCUS. But you did not ask them directly, you asked through your congressional delegation, is that correct?

Mr. CARROLL. That is correct.

Mr. BAUCUS. So you really do not have first hand information as to why the administration did not request full funding.

Mr. HALL. I was going to add that NACo has written HUD and OMB and asked that question and we have received no answer.

Mr. SHIPLEY. Thank you very much. If there are no other questions, we thank the panel for being with us this morning. We appreciate your concern and problems.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

WITNESS

CARL A. S. COAN, JR., STAFF VICE PRESIDENT AND LEGISLATIVE COUNSEL, NATIONAL ASSOCIATION OF HOME BUILDERS

Mr. SHIPLEY. We will now hear from Mr. Carl Coan.

Mr. COAN. My name is Carl Coan, legislative counsel, National Association of Home Builders. NAHB is the trade association of the home building industry with more than 74,000 member firms in 603 State and local associations throughout the Nation. We appreciate the opportunity to comment on the budget request for fiscal year 1976 of the Department of Housing and Urban Development.

Before discussing HUD's budget request, I should like briefly to report to you on the current state of the housing industry and on the national effort to meet our national housing goals. While builders, as a rule, are perennial optimists with respect to their industry, there is not much in housing's outlook today to raise or maintain any hopes at a very high level.

Housing starts during the first 3 months of 1975 on a seasonally adjusted annual basis have only averaged 988,000 units and building permits, the real bellwether of future activity, have fallen to their lowest level since World War II.

The seasonally adjusted annual permit rate of 710,000 units in March was 49.6 percent below the rate for March of last year. Our best prediction is that without stimulative legislation housing starts will not rise above 1.1 million units in 1975.

This housing production level is critically below the level needed to meet the housing needs of the American people. We are nowhere near our 1968 Housing Act goal of 2.6 million units a year from 1969 to 1978. This production failure places an extremely heavy burden on American families seeking decent shelter and particularly those families of low and moderate income. The middle years of the 1970's are the time of highest housing requirements in our history. Estimates of household formations are some 40 to 50 percent higher than the decade of the 1960's. Current levels of starts are not enough to satisfy new household formations alone, to say nothing of removals from supply

now estimated at over 600,000 units per year. There is, in addition, a housing need resulting from the typical American phenomenon of family mobility and movement within our nation.

Of comparable importance to the shortage of adequate shelter is the devastating effect that this slowdown in production has had on employment levels and our national economy. The rate of construction unemployment reached 19.3 percent in April, more than twice the national rate. Our economists tell us that this rate is even much higher in residential construction.

Congress has been responsive to the housing problem. Earlier this week a joint House-Senate Conference Committee approved the Emergency Housing Act of 1975. This measure contains several programs for assisting families to acquire or rent suitable housing and to revive the housing industry. These include, as alternatives, a shallow mortgage interest assistance program for the first few years of a mortgage loan, a shallower mortgage assistance program over the life of the loan, or a down payment assistance program. All of these are subject to the appropriations process, and in the event the measure is signed into law, will require this subcommittee's approval. We urge your favorable consideration for funding these programs.

With this brief overview of the current economic situation in housing, it is most discouraging to look at HUD's 1976 budget request and their proposed action with respect to housing production programs, particularly those aimed at low and moderate income families.

PERSONNEL

One of the most important functions under the housing production and mortgage credit programs is FHA field processing of the various programs. An adequate and effective personnel level is essential to this function and had this been in effect in the late 1960's and early 1970's, the administrative problems experienced by these programs might well have not occurred. Hopefully, the traditional FHA home mortgage program—section 203(b)—will once again play the important role in national housing starts which it once did. For instance, from a high of 29,300 units started in August of 1971, FHA starts fell to a low of 2,500 units in December 1973. In February of this year, 4,800 units were started. If, as HUD hopes and anticipates, this level is once again on an increase, there will be strong demand under the programs and more personnel will be needed in the field. However, for fiscal year 1976 the requests are at the same levels as for fiscal year 1975. We urge the subcommittee to provide sufficient funds to permit the FHA offices to operate at levels sufficient to get the Government's housing programs back on the track.

HOUSING SUBSIDY PROGRAMS

We reiterate our plea that the Department get on with its business of helping house our low- and moderate-income families. This could best be done by releasing the some $279.5 million worth of contract authority currently impounded under the section 235 home ownership program. The section 235 program has had a successful history of operation despite some publicized and overemphasized failures due pri-

marily to poor administration. Funds have been authorized and appropriated for the operation of this program through June 30, 1976.

As the subcommittee knows, the General Accounting Office currently has a suit against the Department to force resumption of this program. GAO is urging two points in its lawsuit. One, that the Congress has failed to endorse any recisions of these funds and, therefore, has overruled the impoundment of them. In addition, GAO has asked the court to set aside the language of the 1974 Housing Act which provides that any contract authority not used by August 22, 1975, will expire and have to be reappropriated.

The emergency housing bill just reported out by the conference committee extends the section 235 program by another year to June 30, 1977. We urge the subcommittee to renew the authority to use all of the section 235 contract authority which Congress has appropriated.

There is going to be a problem and we hope in light of the lawsuit and the impoundment of these funds that the subcommittee would reappropriate the unused contract authority for 235 so it could be used after August 22 because no one anticipates a court decision before this.

It will be a sad victory if this case is won and no money is available for use.

This program remains one of the best vehicles for delivering housing to our low- and moderate-income families. Since the moratorium on the subsidy programs was put into effect in January 1973—28 months ago—HUD's successor program, the section 8 rental assistance program, despite inflated claims made for it, has yet to provide any significant housing assistance.

Frankly, I don't think it has provided one unit.

Mr. TALCOTT. It has not started. The act took effect in January. So that is an easy thing to say.

Mr. COAN. There also was a section 23 program revised by HUD and authorized in 1973. The regulations were put out in 1974. It has not put out any units either.

Mr. TALCOTT. That has been terminated.

Mr. COAN. But that has not produced any units, 500 was the last I heard. It was supposed to be the prototype for the section 8 program.

Mr. TALCOTT. I believe Congress thought differently.

Mr. COAN. There is currently authorized $75 million in contract authority for the section 236 program. We urge full appropriation of this amount particularly for use by 236 projects which are currently experiencing severe operating difficulties through no fault of their own but which have been occasioned by spiraling inflationary costs, higher real estate taxes, high labor costs, and phenomenal jumps in utility costs as a result of the energy crisis. Since the amount of interest subsidy to these projects is fixed, the only way the owners can meet them is through rent increases to tenants already hard pressed in many instances to meet their rent payments.

COUNSELING

Several years ago Congress recognized the need for aiding lower income families who previously had not had home ownership and maintenance experience by providing counseling. Unfortunately, HUD has never seen fit to implement fully the counseling programs.

Their previous efforts have been to use the funds in instances where the mortgage was in trouble or default and, in effect, to lock the barn door after the horse had gone.

Congress in the 1974 Housing Act again authorized counseling and advice to homeowners and tenants for a broad range of needs. It required counseling for homeowners assisted under the 235 program and authorized such amounts as may be needed to be appropriated. Most of the $3 million previously appropriated for counseling purposes has been used. We urge this subcommittee once again to make counseling funds available and to impress upon HUD the need to follow Congress' intent with respect to their use.

PLANNING GRANTS

For the next 15 months, HUD is only requesting $50 million for the 701 comprehensive planning grant program. We think that this is insufficient. The NAHB in its testimony before the House and Senate Interior Committees on proposed land use legislation has urged that the jurisdiction of land use programs is properly a matter for the Department of Housing and Urban Development rather than the Department of the Interior. NAHB feels that land use planning should more suitably emphasize how and where people live than be so heavily oriented towards park services, and so forth. The ideal vehicle for such directional assistance is the kind of planning carried out under section 701. We urge that the subcommittee fund this program on a more effective basis than that requested by HUD.

Thank you for the opportunity to appear today to present our views.

We also endorse full funding for the 701 program. We believe it is a better method of providing assistance.

We hope that is the route to be followed rather than the land use acts spending in the House and Senate. If full funding is not held that could not be fulfilled.

Mr. SHIPLEY. Thank you very much. With regard to counseling funds, this committee may have some mixed feelings on this, but I for one have felt we should do what you said. We need counseling funds very badly. It is somewhat my understanding that maybe now HUD might become a little more interested in counseling programs. I hope it comes about.

Are there any questions?

Thank you very much.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

WITNESS

RICHARD Y. NELSON, DEPUTY EXECUTIVE DIRECTOR, NATIONAL ASSOCIATION OF HOUSING AND REDEVELOPMENT OFFICIALS

Mr. BOLAND. We will hear next from Richard Nelson, deputy executive director of the National Association of Housing and Redevelopment Officials.

Mr. NELSON. Mr. Chairman and members of the subcommittee, my name is Richard Y. Nelson, Jr., deputy executive director of NAHRO,

the National Association of Housing and Redevelopment Officials. As you know, NAHRO is the professional, membership association of housing, urban renewal, community development, and code enforcement officials, and agencies throughout the country. At present, our membership is comprised of approximately 6,200 individual and 2,200 agency members.

On behalf of this cadre of local practitioners and administrators, I am pleased to have this opportunity to appear before this subcommittee to present NAHRO's comments and recommendations relative to fiscal year 1976 appropriations for the programs and activities of the Department of Housing and Urban Development.

The proposed HUD budget requests are based in large measure on the administration's efforts toward implementing the provisions of the Housing and Community Development Act of 1974. This implementation is occurring during a critical period of national economic instability. The real victims of the present economic recession—the low- and moderate-income consumer—are also the intended beneficiaries of the initiatives and assistance provided for in the 1974 legislation. Our general impressions with respect to the proposed HUD budget levels suggest, however, that the relationship of these levels to the objectives of the 1974 act are being ignored and delayed.

Mr. Chairman, the NAHRO membership welcomed the enactment of the Housing and Community Development Act of 1974 with aggressive optimism and hoped that the national momentum for renewing and revitalizing local communities and expanding housing opportunities could be regained. This subcommittee is well aware of the record of nonachievement during the years immediately preceding its enactment.

In addition to the promises inherent in the new legislation, the 1974 act also contained many compromises designed to strike a balance between existing and new program tools in order to insure that long-neglected needs would be addressed while new and untried programs were tested and made operational. Mr. Chairman, it is our firm observation that both these promises and compromises are now floundering. Over 8 months have elapsed since the enactment of the 1974 act. During this period there have been no commitments for subsidized housing production under the new section 8 program. While there are other assisted housing programs authorized by the 1974 act these other proven housing initiatives continue to be ignored with the exception of some limited bona fide commitments pending at the time of the 1973 moratorium. Further, while HUD may now be finally in a position to implement the new section 8 program, the program design remains untested and in fact the subject of much skepticism. At the very least there will be an extended period before the commitments under section 8 can result in construction starts.

This record of nonimplementation is nowhere more evident than in the proposed HUD budget for fiscal year 1976. In certain instances, the budget proposes funding levels for programs significantly below the amounts authorized and, in fact, below the levels necessary to implement new program designs. In this regard, this subcommittee is aware of the inability of the new community development block grant program to respond to even a portion of the demands among

nonentitlement metropolitan communities during fiscal year 1975. The proposed level for fiscal year 1976 promises only token relief.

In the case of operating assistance for public housing, the promises of the 1974 act pledging support for "adequate operating and maintenance services and reserve funds" are not carried forward in the proposed funding.

Finally, the budget contains no requests for certain initiatives contained in the 1974 legislation such as urban homesteading; technical assistance and counseling; and interest differential grants for state development agencies utilizing taxable obligations. The underfunding or nonfunding of programs is an obvious and serious impediment to the successful implementation of the new law. The situation becomes tragic, however, in relation to the desparate plight of urban and rural persons and communities staggering from the effects of economic recession.

Clearly, this Nation is experiencing a housing emergency. Our association is of the firm belief that expanded housing and community development program activity related to the basic needs for shelter and viable communities can move forward as an integral part of a comprehensive program to bolster the national economy. Much can be accomplished through the vigorous and immediate implementation of the 1974 Act. While some emergency assistance may be necessary to spur housing construction and alleviate unemployment, we would caution that such efforts not be substituted for permanent program focused on social goals and basic needs.

Mr. Chairman, as I have indicated, the proposed HUD budget for fiscal year 1976 continues to ignore the promises and compromises inherent in the new law. It is a budget which supports already unrealistic production targets rather than setting meanginful goals which evidence a real commitment to this Nation's communities. For example, the proposed fiscal year 1976 HUD budget released in February 1975, estimated commitments for 200,000 units under the section 8 program by June 30, 1975. In recent testimony before the subcommittee, Secretary Hills revised this estimate to only 40,000 units, of which only 15,000 would be new construction. In light of this constant process of revision, we must question both this recent adjustment in production goals as well as the target of 400,000 units during fiscal year 1976.

The budget before you for consideration, when viewed in concert with the administrative policies of impoundment and moratorium over the past several years, suggest a trend towards a policy of Federal disengagement from housing and urban problems. The Congress can reverse this apparent policy through adequate funding and vigorous oversight.

It is within this context, therefore, that we make the following specific observations and recommendations on HUD program funding levels for fiscal year 1976.

COMMUNITY DEVELOPMENT

NAHRO strongly urges the Congress to appropriate the full authorized amount for community development—that is, $2.95 billion

for block grants and $50 million for the urgent needs transition fund. A $3 billion community development appropriation represents less than 1 percent of President Ford's fiscal year 1976 budget of $356 billion, yet that small percent has the potential of producing significant improvements in local economies and, cumulatively, in strengthening the national economy.

Community development funds generate jobs in public works, construction, housing rehabilitation, local government, architecture, planning, social services, and other fields. Community development moneys put underutilized land and blighted structures to productive uses, expanding local revenues. Community development moneys enable cities to conserve and improve existing housing and the expensive underpinning of a city, such as roads and sewers, saving cities the high cost of replacement. And community development moneys help provide needed human services.

All of these objectives are being postponed by cities caught in a fiscal squeeze. Experience is not bearing out the administrations announcement that the urban crisis is over. Regrettably, it is still with us, witness the number of cities raising taxes, cutting back services, and laying off personnel, with the evergrowing problems of physical decay and inadequate and insufficient housing still to be solved. The community development program cannot by itself reverse the deterioration of our cities. But in connection with other Federal, State, and local programs, and as the catalyst for private investment, the block grant program can be an instrument of positive change. The administration's request for $2.7 billion in block grant funds and $50 million in urgent needs moneys cannot completely fulfill the promise of the community development program.

When former Secretary Lynn testified before the House on HUD's fiscal year 1975 appropriation, he held out the promise that "Under BCA (Better Communities Act), communities will have the prerogative, without Federal interference, to initiate, maintain, discontinue, or expand any current community development activity or to start new activities * * * assurance of funding will allow cities to undertake rational planning, and to coordinate available resources for community development programs."

At this moment, cities with title I urban renewal and NDP projects are puzzled as to how to exercise their prerogative and at the same time complete existing projects. There are just not enough block grant funds to complete title I projects and begin some new activities. The urgent needs fund authorized in the 1974 act falls far short of making whole urban renewal and NDP projects. Secretary Meeker testified last month that there was $270 million worth of urban renewal requests against a $50 million urgent needs appropriation. NAHRO urges this committee to explore with HUD a way of meeting the outstanding obligations on existing title I projects, including, if necessary, an amendment to the authorizing legislation increasing the amount of urgent needs funds.

NAHRO believes that a $2.7 billion block grant appropriation short changes communities. In fiscal year 1973, Congress appropriated $2.2 billion for the categorical community development programs. A $500 million increase over 3 years is inadequate. It does not compensate for the dollar's erosion caused by 3 year's worth of soaring inflation.

It does not reflect the pent-up demand for community improvement, added to by the 1973 moratorium on HUD programs. And, particularly, the fiscal year 1976 budget does not provide enough elasticity to respond to the high expectations the new legislation has generated among nonentitled localities. The competition for discretionary funds is brutal; the numbers speak for themselves—1,500 preapplications for SMSA discretionary balances. No funds available. There are 5,000 preapplications for non-SMSA discretionary funds. Available funds are $199 million. A $2.95 billion level in fiscal year 1976 will produce only incremental improvement in the funding opportunities for communities relying upon discretionary moneys. Why shortchange them further by appropriating $250 million less than the amount authorized?

NAHRO believes that the new community development program has great promise. It deserves the best possible chance of succeeding. Our cities desperately need that chance. We urge this committee to appropriate the full authorized amount for community development.

701 COMPREHENSIVE PLANNING ASSISTANCE PROGRAM

The Housing and Community Development Act of 1974 authorizes $150 million in comprehensive planning assistance funds for fiscal year 1976. NAHRO urges funding at the full authorized level for several reasons. First, the conditions and pressures on the State and local level which require a comprehensive planning and management capacity are not abating, but rather continue to increase. Issues such as growth and land use, the environment, the economy, and energy conservation need to be dealt with in a coordinated and concerted way. The 701 program is an important vehicle for aiding such efforts.

In justifying the deferral of $50 million in fiscal year 1975 701 money last year, the administration reasoned that large metropolitan cities and urban counties could do without compresensive planning assistance funds and instead utilize their community development block grant entitlement. As noted earlier in this testimony, with the demand for community development funds, localities do not have sufficien community development funds to divert them to a full scale, compresensive planning effort. In addition, NAHRO believes that a definite distinction is drawn in the Housing and Community Development Act of 1974 between planning for the community development block grant program and planning assistance under the 701 program. Section 105 (title I, Community Development) states that "activities necessary—to develop a comprehensive community plan" are eligible for Federal assistance whereas section 401 (title IV, compresensive planning) states that "activities which may be assisted under this section include those necessary—to develop and carry out a comprehensive plan as part of an ongoing planning process." The distinction here is clear between functional planning and compresensive planning. The community development block grant program and the 701 comprehensive planning assistance program are complementary efforts. One does not substitute for the other.

Local, regional and State planning efforts would be enhanced and facilitated if the 701 program, like the community development program provided "assistance on an annual basis with maximum certainty

and minimum delay upon which communities can rely in their planning."

As a step in this direction, we would recommend your funding this program for $150 million in fiscal year 1976.

HOUSING REHABILITATION AND NEIGHBORHOOD CONSERVATION

A compresensive national housing strategy during this period of economic stress and concern for resource and energy supply must address the benefits to be realized through the preservation and conservation of the existing housing inventory. The present recession has severely limited the supply of capital avaialable to low income homeowners who desire to rehabilitate their dwellings to code standards and to assist in stabilizing the neighborhoods in which they choose to remain. To accomplish the preservation and conservation of the existing housing inventory, there must be adequate tools and sufficient funding to do the job. We feel strongly that the community development funds provided by the 1974 act need to be supplemented by the continuation of the secion 312 rehabilitation loan program.

The real cost to the Federal Government by using this successful loan mechanism is minimal. At times during the past year, the section 312 account actually showed a negative balance representing the excess of repayments over new loan commitments. In addition, legislative provisions now pending would change the accounting nature of the program to require an annual appropriation equal only to the real cost to the Federal Government, that is the difference between the section 312 loan interest rate and the Treasury borrowing rate. NAHRO supports this specific change. In any event, NAHRO strongly recommends the section 312 program be extended and funded with a program level in fiscal year 1976 of $150 million.

HOUSING FOR LOWER INCOME FAMILIES

The overwhelming fact about the present status of Federal housing assistance for lower income families is that it is at a standstill, basically the same distressing situation that has prevailed during the 27-month moratorium on new Federal commitments beginning in January 1973. The main hope for a revival rests at the moment with the section 8 housing assistance payments program authorized under the 1974 act. The long period involved in developing the complex regulations of the section 8 program has ended with many experienced housing professionals, private and public, still having grave reservations about whether the section 8 program can be developed as a major answer to the housing needs of lower income families. I am attaching to this testimony a NAHRO checklist of major potential problem areas in the section 8 housing assistance program, and respectfully request that it be included in the hearing record. NAHRO urges the subcommittee to carefully monitor the progress of the section 8 program in the light of these concerns over the next few weeks, particularly to determine the degree of interest in the program by potential housing developers.

In the calendar year 1975, even if the section 8 program should begin to accelerate, it is doubtful that any large number of units can be placed under construction. For this reason, NAHRO is gratified by the pending action of the Conference Committee on the 1975 Emergency Hous-

ing Act that would transfer $150 million of contract authority for use in the traditional public housing programs. Local housing authorities across the country have approved project applications, many with sites selected and preliminary work accomplished, that can go under construction before the end of 1975. Such action could bring some hope to the low-income families on waiting lists of housing authorities, and make a beginning dent in the over 200,000 units in approved applications left hanging at the time of the 1973 moratorium. NAHRO strongly urges the subcommittee to support this action of the Conference Committee, and to be prepared to expand this effort in the traditional public housing program should the section 8 program fail to develop a significant housing effort. At the same time, we hope that the subcommittee will also support the use of all available contract authority under the section 235, 236 and 202 housing programs to insure that in fiscal year 1976 we can continue to respond to low-income housing needs, while the section 8 program is being tested. Low income families have been without a federally assisted production effort for over 2 years. It is past time to take action to get this assistance moving again.

As a vehicle to provide operating assistance for existing public housing, HUD has adopted a "performance funding system" effective for local housing authorities whose fiscal years began on April 1. The new system replaces a very inadequate "interim assistance" plan that has been utilized by HUD for the past 3 years. The basic element of the new system is a "prototype formula" that provdies operating assistance on the basis of "high performing" authorities.

NAHRO's overriding and firm position is that local housing authorities must be provided with Federal operating assistance that is rational and equitable and which is at sufficient levels and with predictable consistency from year to year, to enable them to achieve and maintain public housing development in a sound condition and environment; with adequate operating, social, and maintenance services and reserve funds. The chaotic, hand-to-mouth, interim arrangements of the last several years must be replaced with a more dependable and equitable arrangement. The HUD "performance funding system," including the "prototype formula," may not be the final or adequate answer to a system for funding operating needs. It is also clear that continuing efforts must be made to perfect the formula and make it more equitable. But, as an immediate system which can be implemented quickly, it does provide a more stable and equitable system for about 85 percent of all housing authorities. For this reason, NAHRO does not oppose the implementation of the prototype formula, providing certain modifications are adopted by HUD.

NAHRO would like to point out to the subcommittee, that Federal assistance for existing public housing—represented in debt service and contributions under the "performance funding system"—is estimated to be far below that of assistance authorized for the section 8 housing assistance payments program. An analysis by the San Francisco Housing Authority of 16 large cities—May 1975—shows that the assistance available to local housing authorities in these cities is generally less than half of that authorized under the section 8 program for similar types and sizes of dwelling units based on the fair market rent levels for existing housing in these cities. In one example, the

total HUD contribution to a local housing authority—including debt service and the performance funding system—was $111.27 per unit, while the total authorized HUD contribution under existing section 8 fair market rents was $227.85. In fact, in the 16 cities analyzed, a HUD contribution of approximately two-thirds of that authorized under the section 8 existing fair market rents would enable local housing authorities not only to achieve adequate operating services, but take action to eliminate the backlog of deferred maintenance, establish reasonable reserve levels, and in some cases, return residual receipts to the Federal Government. It is hard to provide a rational explanation as to why Federal assistance levels provided under section 8 should be denied to low-income families in public housing.

NAHRO makes the following recommendations in terms of the "performance funding system," in order to make it workable and equitable in serving low-income public housing residents: (1) the first and most critical policy relating to the new "performance funding system" is that, once adopted, it should be implemented with integrity—both by assuring objectivity in its calculations and by assuring funding required by the formula. In terms of funding the new system, NAHRO has serious doubts that levels proposed by the administration over the next 2 fiscal years are adequate, $525 million on July 1, 1975, and an additional $47 million on October 1, 1976. The present HUD estimates of utility costs are minimal, and would be seriously deficient if utility costs continue to rise or if there is a severe winter in 1975–76. Also, the rate of inflation in operating costs through 1977 is unpredictable. Under the authorizing amendments proposed by the administration to the Congress on April 29, the operating assistance authority for public housing would be separated from general contract authority; thus, if the operating assistance authority proves inadequate, there is no other available contract authority under which additional appropriations could be approved. NAHRO recommends that if the operating authority is to be separated from general contract authority, that the ceiling authority for operating assistance be raised to $650 million on July 1, 1975, giving sufficient leeway for the appropriations committees to consider actual appropriations levels required within this range. It would be ironic and disastrous if the Department of HUD, after spending several years and extensive resources to create "the performance system," could place the responsibility on the Congress for not funding it at the levels called for under the prototype formula, because the statutory ceiling on operating authority was too low to accommodate the formula calculations.

NAHRO recommends that this subcommittee request more detailed information from the Department of HUD to support the requested operating assistance levels for fiscal years 1976 and 1977, as well as estimates of authority that may be required to implement the specific changes in HUD policy, recommended by NAHRO and outlined below (items 2–7, plus deferred maintenance).

(2) The "performance funding system" should be made effective retroactive to October 1, 1974, to assist housing authorities whose fiscal years began on that date, and on January 1, 1975. October of 1974 was the original target date for implementation of the new system but because of the delay in HUD implementation many local housing authorities continue to receive operating assistance only under the

completely inadequate interim formula. Although many of the authorities whose fiscal years began on October 1, 1974 and January 1, 1975, fall within the prototype funding range, they will not be able to maintain operations if they must wait up to a full year to be placed under the new system. This is a critical emergency in a number of large housing authorities within the next few months.

(3) HUD should review carefully the adequacy of the LHA operating budget in the year that it is to be utilized as the "base year" for the prototype formula, and authorize the LHA to adjust this "base year" expense level if it is shown to be deflated due to the inadequacies of the interim formula. Many local housing authorities severely reduced expenditures below an adequate management operation because of the inadequate assistance of the interim formula. This deflated level of operation should not be used as "the base" for the new system.

(4) An appeals process should be instituted for all local housing authorities, including those whose expense levels place them over the prototype range, permitting authorities to request a line-item budget review by the HUD area office, over the next 3 years. It is generally recognized that the "prototype formula" is not a perfect formula and it is impossible to predict its full impact until there is some experience with it. A line-item budget review should be combined with a special program of HUD management improvement funding for those authorities whose expense levels fall over the prototype range. This would be a practical and equitable way both to test the new system, and assist those authorities "over the range" to attain full effectiveness and efficiency.

(5) The proposed procedure for the determination of funding assistance for utility costs (the consumption pattern of the last 3 years, and the current rate structure) should be amended by adding provision for a retroactive adjustment at the end of each fiscal year based on actual consumption experience. The chaotic shifts in utility consumption patterns now taking place make it likely that the past 3-year pattern of consumption may not be representative of current experience.

(6) The proposed procedures for the determination and disposition of authority income under the performance funding system should be amended by authorizing that any increases in income achieved by a local housing authority should be retained by the authority, and not returned to the Department of Housing and Urban Development, until the authority has achieved a level of operating reserves at least 40 percent of the permitted maximum.

(7) Local housing authorities should be permitted to appeal for additional funding for "tenant services" over and above their prototype calculations, if the funding for such services is insufficient to meet the "matching share" for funding from other Federal, State, or local services; and if the proposed tenant services are considered critical to the effective management of the housing authority.

In addition to the NAHRO recommended modifications to the performance funding system, it is essential that provision be made to redress the serious conditions of deferred maintenance in many local authorities resulting from the inadequate operating assistance of the past 5 years. There is no provision to cover the deferred maintenance fund of at least $200 million to assist in the elimination of this backlog. It is also essential to continue the progress made toward moderni-

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zation of older public housing to address the backlog of need, still estimated at over $1 billion. This requires annual contributions levels of $40 million over each of the next 2 to 3 years.

These steps are absolutely essential if the present inventory of over 1,200,000 public housing units are to be maintained as a critical resource for low-income families.

STABILIZING THE OPERATIONS OF SECTION 221–D–3 AND SECTION 236 PROJECTS

The present untenable situation in many section 221–d–3 and section 236 projects is the result of a number of critical factors—but key among them are rising inflation in operating costs and limited capacity of resident families to absorb rental increases. The 1974 Housing and Community Development Act—section 212—authorizes two methods for bringing relief to these situations. The first is authorization for additional assistance payments to families unable to pay the basic rental charges within 25 percent of their incomes; this provision however, is made effective only for contracts executed after the effective date of the 1974 act. An immediate critical need is to apply similar assistance to existing 221–d–3 and 236 units. NAHRO recommends that the subcommittee urge the Department of HUD to immediately utilize existing and unobligated rent supplement authority to provide additional assistance to enable residents to meet increased rental costs in these projects. In addition, NAHRO recommends that the subcommittee urge HUD to utilize the section 212 provision authorizing additional payments to owners of section 236 projects to enable them to absorb unavoidable increases in utilities and local property taxes.

CONCLUSION

Mr. Chairman, the NAHRO membership remains committed to the quick and effective implementation of the 1974 act in concert with sound national economic policies. As I have indicated, we feel this is possible with full funding of the programs at authorized levels. In addition to the funding, however, there must be strong administrative action at the local and Federal level to insure the effective implementation of the act. With this point in mind, our association will be undertaking a major effort over the next two years to monitor the implementation of the community development and housing assistance provisions of the new law.

In our opinion, it is essential that objective and evaluative information on the implementation of new programs be gathered from the outset in order to—measure with hard data—the accomplishments against the purposes and objectives established in the law. We will be pleased to keep you informed and discuss with you and staff the products of our monitoring effort on a continuing basis. Our efforts will focus on the content of local programs, changes and trends in local organization and the manner of HUD administration. In regard to this last point, it is hoped that the committee over the next several months will carefully review the levels, management expertise, and technical capacity of HUD staff in relation to the execution of the new programs. The successful implementation of these programs should

not suffer from HUD's inability to provide the proper assistance when and where needed.

I appreciate this opportunity to present this testimony on behalf of the NAHRO membership and will be happy to respond to your questions.

[The testimony follows:]

[NAHRO testimony: Attachment 1]

NATIONAL ASSOCIATION OF HOUSING AND REDEVELOPMENT OFFICIALS

NAHRO CHECKLIST OF MAJOR POTENTIAL PROBLEM AREAS IN THE SECTION 8 HOUSING ASSISTANCE PROGRAM—MAY 12, 1975

Problem areas are identified on the basis of the NAHRO analysis of both section 8 administrative regulations and responses of over 1,400 delegates in four section 8 regional workshops conducted in the period between March 11 and April 15, cosponsored by NAHRO, the National Association of Home Builders, and the Council of State Housing Agencies.

1. Difficulties in procuring financing for new construction

Conventional.—The conventional lending market is wary of lower income housing, and especially in the present period of heavy competition for investment money. Mortgage lenders doubt that any significant volume of conventional funds will go into section 8 construction, particularly at this point in time.

State Bond Obligations.—The moral obligation bonds of State housing finance agencies, traditionally used to finance state housing construction, are being closely evaluated by bond investment houses, since the New York State UDC difficulty in meeting its debt service obligations. At best, the future interest rates on new State bonds may be considerably above those of the past, restricting the capability of state agencies. At worst, bond investors will avoid the state housing finance market.

Local housing authority bond obligations.—The Federal Government does not provide a full faith and credit guarantee of local housing authority bonds under the section 8 program, as it does under the traditional public housing program. Local housing authorities must seek new ways of marketing section 8 obligations involving pledging the Federal housing assistance payments contract as security, utilizing FHA mortgage insurance, developing revolving debt service funds as a security backup or other devices. How bond investors will eventually view such security devices is unclear, but any such devices will involve a close analysis of each housing development proposal, a function most bond houses are not equipped or anxious to undertake. A further handicap is that unlike the practice in traditional public housing where bonds of local housing authorities are pooled and taken to the market at the most favorable times, the section 8 bond obligations will go to the market on the basis of individual authority issuances. At best, bond houses will accept the new security backup for local authority bonds, but at significantly higher rates than traditional public housing bonds. At worst, the bonding houses will avoid local housing authority bond issues.

2. Deterrent of the 60-day vacancy factor

The statutory and administrative restrictions that preclude section 8 Federal assistance payments to any housing owner for vacancies of over 60 days, and only 80 percent of such payments for vacancies up to 60 days, have impacts on (1) ability to procure financing since it affects the security status of the obligation, as well as (2) the interest of prospective owners, particularly private owners, in undertaking lower income housing development under section 8, because the family selection and renting process is difficult.

3. No assured mechanism for front-end planning and development costs

Private owners and developers traditionally utilize their own resources for front-end costs or obtain temporary loans from conventinal loan institutions in anticipation of assured permanent financing; their ability to obtain and assure permanent financing is an important element in this process. State housing finance agencies also depend on the viability of their permanent financing instru-

ments to assure front-end money. Traditionally, local housing authorities have utilized preliminary loan contracts from the Federal Government as security for temporary loans; section 8 eliminates this loan contract. Thus, local housing authorities must attempt to improvise new devices to obtain front-end money. A section of the 1974 Housing and Community Development Act—section 811—provides that local housing authorities (as well as non-profit housing sponsors) can receive federal develpment loans, but no request for appropriations to fund this section has been made by the administration to the Congress. In the case of all three major potential housing developers—the private builder, the state housing finance agency, the local housing authority—there are serious difficulties in obtaining front-end financing under section 8.

4. Inflexible application of fair market rents in sub-market areas discourages proposals and could reduce quality

The HUD adjustment of the fair market rents in late March and early April established higher and more realistic levels in many areas. However, these rents are "ceiling" rents. Initial experience in the proposed application of these rents indicates that HUD area offices in some areas are not flexible enough in recognizing the differences in relative costs in submarket areas and the level of fair market rents required under the total ceiling rent. Failure to recognize these realistic costs could result in failure of some proposals to qualify because they are in higher-cost submarket areas or result in cutting back on design and construction quality and amenities essential to the long-term success of the program.

5. Uniform relocation assistance is applicable only to public housing agency-owned projects and even in this case, funds to effect this assistance must come from sources other than the section 8 program

Final section 8 regulations give greater weight in projects which do not require displacement. This means that housing related to slum clearance and community development projects will be avoided, unless these costs can be covered by local community development funds. The traditional practice of permitting relocation costs to be reflected in the total housing development costs of public housing is denied under section 8.

6. Difficulty of the section 8 program in servicing very low income families, particularly large families

Although the congressional intent under the section 8 provisions of the 1974 act is that at least 30 percent of section 8 units be occupied by very low income families, and that 20 percent of the units approved each year be for larger units of three bedrooms or more, the groundrules of the section 8 program make it difficult to achieve such percentages. Under the regulations, while the owner is required to lease initially at least 30 percent of assisted units to very low income families, he is not eligible for 100 percent assistance unless the project has less than 50 units; after occupancy, the owner is required only to exercise his best efforts to maintain this 30 percent occupany. In terms of the three bedroom unit requirement, the HUD field offices are directed to invite and select proposals which in the aggregate will achieve the 20 percent statutory goal. However, unless particular encouragement is given by the HUD offices to these generally more costly larger units—particularly if they are in projects of less than 50 units—it is unlikely that many sponsors will seek to develop them. In the case of both very low income families and large families, the section 8 restrictions against on-going tenant services as part of operating budgets is a serious deterrent. There is no indication that the HUD offices are authorized to utilize the additional 10 or 20 percent leeway above fair market rents to encourage larger units, tenant services, or tenant facilities such as day care centers.

7. Insufficient support for long term management responsibilties

The section 8 program places the full responsibility for housing management on the owner, but restricts the selection of the public housing agency as a manager for private owners, makes no provision for tenant services as part of management expenses, provides no federally supported management training, and authorizes no specialized HUD staff to counsel owners in management matters. The model lease and grievance procedures established by HUD in the traditional public housing program do not apply in the section 8 program, except for PHA-owned projects.

8. Diffused local administrative organization

Each owner is charged with general administrative responsibilities: (1) taking of applications, (2) selection of families, including verification of income, (3) determination of eligibility and family contributions, (4) termination of tenancies, including evictions, (5) reexamination of family income and composition. This requirement means that in any single local community, a variety of housing sponsors will be making separate determinations of all of these factors, often with different interpretations and practices. The family seeking housing in a local community must apply to each housing sponsor on a separate basis, with no centralized or uniform administrative practices. While private owners may contract with a public housing agency to perform such services, there is no HUD encouragement for a local centralized operation that could act as a central information service for applicants, and match eligible tenants with owner listings on a communitywide basis.

9. Lack of consistency between section 8 housing and the local housing assistance plan

While each section 8 housing proposal must be sent to the local community to receive an opinion as to its consistency with the local housing assistance plan, this general accommodation is offset by other section 8 procedures. The section 8 regulations place the responsibility for the program mix between new construction, substantial rehabilitation, or existing housing at the discreton of the HUD area office, with no specific procedures for relating it to local housing assistance plans. New section 8 construction is permitted only (1) where HUD determines that there is not and there is not likely soon to be an adequate supply of existing housing which could be assisted with section 8 and (2) where the proposed project is inaccordance with HUD priorities. With these provisions, the housing assistance plan findings appear completely negated. In addition, there appears to be no way that a community can determine locations of section 8 existing housing, in relationship to its housing assistance plan; the "finders keepers" and "shopping incentive credits" of the section 8 existing housing procedures are not linked to the "general housing locations" of the housing assistance plan.

10. Lack of incentives and requirements to assure construction and design quality

In addition to the constraints that may result from inflexible HUD administration of fair market rents (see 4 above), there are a number of other section 8 procedures that could adversely affect design and construction quality. The basic Certification of working drawings and specifications is by the contract architect, with no provision for an additional certification by an independent architect. At the completion of the project, a registered architect responsible for inspection of construction certifies that the project has been inspected according to generally accepted standards of professional care. Project inspection by HUD occurs only upon project completion, not during the construction period, except where the projects has FHA mortgage insurance. The section 8 regulations contain no encouragements or incentives to achieve high quality in either design or construction. The prevailing language, in the section 8 regulations on design and construction quality is that of the fair market rent definition, that is "privately developed and owned newly constructed rental housing of modest (nonluxury) nature with suitable amenities and sound architectural design meeting the objectives of the HUD minimum property standards." While the Secretary of HUD is authorized to approve standards which are "equivalent or exceed HUD minimum property standards," there is no indication in the regulations of how such requests to utilize higher local standards will be viewed by HUD area offices or how design innovations will be reviewed.

11. Complex and complicated HUD administrative policies and procedures

While the stated objective of the section 8 program is to place maximum initiative in the hands of the participants at the local level—the housing developer/owner the architect, the local community—the final section 8 regulations are in fact a very detailed and complicated set of administrative policies and procedures that give a major emphasis to involvement of the Department of HUD. In many instances, the local participants are involved in complex HUD administrative clearances and requirements, but without the HUD support and back-up in critical matters of responsibilities relative to the quality of design and construction and long-term management requirements.

Mr. BOLAND. Thank you very much, Mr. Nelson. I am sure that you realize that this committee does realize the problem we have in housing and housing starts. We do have a great deal of concern. I am sure you realize also that every segment of the economy today is in asking the Congress for help and assistance because of the economic system we are in.

I hope you and others appearing before the committee realize we have a responsibility to show some restraint in Federal spending, which is one of the biggest contributors to inflation.

I know this committee will do everything that we can. But if the appropriations Committee ever decided to appropriate full funding for all authorizations, this country would not last over a couple of years. So I think we have to show some restraint from time to time. I am sure you appreciate that.

Mr. NELSON. If I may, I would like to respond in the sense that first we do feel very strongly that if the appropriations reached the maximum authorized level that that would not be enough.

The other point we make in connection with your statement, realizing that the Congress cannot fully appropriate in all cases the fully authorized amount we feel there is a very strong case to be made that the housing and community development programs do have a very positive effect on the whole national economy.

Mr. BOLAND. I understand that. I know the whole committee does. We have the same problem when the educational people come in here. We want to try to insure decent housing for every American.

Thank you, Mr. Nelson.

HUD COMPREHENSIVE PLANNING GRANTS

WITNESS

FRANK A. KIRK, VICE PRESIDENT, COUNCIL OF STATE COMMUNITY AFFAIRS AGENCIES

Mr. BOLAND. We will now hear from Frank A. Kirk, vice president, Council of State Community Affairs Agencies.

Mr. Kirk, please proceed in any way you wish. I know you are very familiar with the subject matter. You may submit your statement for the record in its entirety and highlight it if you wish.

Mr. KIRK. Thank you. I would like to say I will be in a meeting in Albany tomorrow of local government officials. If you want to be remembered to anyone there, I will be pleased to carry your message.

Mr. BOLAND. Thank you very much.

Mr. KIRK. Since my statement tends to duplicate testimony you have already received, I will, in the interest of time, simply hit a few highlights that represents the State's perspective on the importance of 701 funds to local governments.

The organization that I represent, the Council of State Community Affairs Agencies, represents cabinet level officers in State agencies servicing local governments throughout the country.

There are now about 40 such agencies in the States. The organization is a relatively new one. We formally organized last summer. We now represent 25 of the 40 States that have these kinds of agencies. Of

course what we do is simply attempt to work together and share information and pursue our common objectives.

One of the efforts that we are in the process of undertaking is to document throughout the country the uses that have been made of 701 funds by local governments and regional planning agencies.

We are not in a position to bring to you that kind of documentation at this time.

We do feel it is important. Our sense of what has been happening in 701 funds in the last couple of years is that the historical image of using the money to prepare plans that then gather dust on shelves is no longer valid. We feel that two kinds of things have been happening in recent years with 701 funds. One is that local elected officials priorities on how to use those funds are now much more influential in the use of those funds than they were originally. I think it is true in the initial years of the program that the professional planners had more to say about how those funds should be used than did the elected officials.

Mr. SHIPLEY. If I may interrupt, I know that to be very true. They did not have the talent and expertise and they went along with it.

Mr. KIRK. That is right. Now they are asserting themselves quite vocally.

Mr. BOLAND. What about your opinion on the use of community funds, those communities that are participiating extensively in the 701 program, to pay for management. This committee totally agrees with the position you take that management capability is terribly important. We think the local officials ought to have that management capability and advice. They need expertise and knowledgeability. I totally agree.

However, you know the pie is only so large. The first appropriation for 701 was about $1 million. Now, of course, it has gone to $100 million and there have been requests for $125 million and $150 million. It gets larger; $100 million a year is a lot of money. As you know, and being with the Illinois Department of Local Government Affairs you recognize there is just so much money to go around. I think this committee has a responsibility of trying to determine where we can best use the funds that are being provided to local governments.

As I say, we have no objection and we completely endorse the use of the funds for the varied purposes that you outline here. But it would appear to me that if the program is that good, and we believe it is, that the mayors ought to recognize that fact and use just a small part of the huge sums being returned to cities.

For instance, the mayor of Trenton said over the past 3 years he had received around $260,000 for 701 planning. That is about $80,000 per year. He is receiving $5 million plus in 1975 and about $5 million in 1976 in the community development program.

I cannot understand, when it would only take an infinitesimal portion of that fund, why they do not use it for the very purposes we are discussing here.

What is your reaction on that?

Mr. KIRK. I have two reactions. I think some of the kinds of activities possible with 701 funds, community development funds, can be used for—although the reguations are such that it is not as flexible and it is a narrower range of activities—the other issue is that for the

nonentitlement communities, and of course we as State agencies are dealing more with the nonentitlement communities than with the entitlement communities. They are not privileged to use any of their community development bloc grant money for planning purposes.

So it does not really help them. It may help the big cities.

Mr. BOLAND. Our understanding is that CD funds can be used for this very purpose. I do not think there is any restriction on the use of those funds for management activities or planning activities that local communities face. Consequently, it is our belief that CD funds can be used for that very purpose.

Where do you get the impression that they cannot be used for that purpose?

Mr. KIRK. From discussions with HUD officials. When they were in the process of writing the regulations for the Community Development and Housing Act they wrote regulations for the entitlement cities that makes it possible to use those funds for planning purposes but only as it is directly related to any use they may be making of the community development funds themselves. What they said specifically to us on the discretionary funds which are the funds which everyone other than the entitlement cities have access to, that as we interpret the law, they cannot be used for planning purposes. That is written into the regulations.

Mr. BOLAND. I notice in Public Law 39-383, section 105(a)(13), the language indicates, "payment of reasonable administrative costs and carrying charges related to the planning and execution of community development and housing activities, including the provision of information and resources to residents of areas in which community development and housing activities are to be concentrated with respect to the planning and execution of such activities." I think the law gives authority to local communities to use CD funds for the purposes we are talking about here.

Mr. TALCOTT. Mr. Chairman, may I say I want to commend Mr. Kirk on his statement.

You give me the impression that you both prepared your own statement and that you know exactly what you are talking about. Some of the previous witnesses here gave me the impression that their statements were prepared by staff and they did not know what they were talking about.

I think you should know this committee believes in planning. We want the cities and local governments to plan. We believe in the CD program, too.

We have been advocates of that. I think there is one thing I would like to share with you. That is that we have a different responsibility than the authorizing committees. These are the special interest committees who are developing programs and they set maximum limits. We have the responsibility of appropriating funds for all the agencies and departments of the whole Government.

We have to set the priorities and utilize all of the funds for the whole Nation.

We have to try to provide funds to the maximum benfit possible for the greatest number of people but with limited funds. So full funding is just not possible in every area. That is the responsibility of the appropriations committee to set the funding levels. The au-

thorizing committee sets maximum levels and then we have to work within that. So we have a different responsibility, which I think you people should appreciate.

Mr. KIRK. If I may respond to that, Congressman Talcott, I have been in somewhat similar positions as a city councilman and in my position as a director of a State agency I am also faced with the allocation program. We administer 701 funds and we have far more demand than we have money.

I can fully appreciate the uncomfortable position which you are in ten times more than I am.

Mr. TALCOTT. We are trying to help the cities and counties. That is our function.

We look at it as trying to cooperate and work with them and trying to provide the funds they can use best. We thought we were doing that with the CD program.

Each one of the people who has testified here has testified that planning is a high priority, one of the highest. We feel that if it is such a high priority they will find local funds or CD funds to do this kind of work. We just cannot develop new programs; flexible programs, and keep on with all the categorical programs forever. That is our problem.

Mr. KIRK. I can certainly appreciate that.

I think that there might be—we have had lots of discussions with HUD, the council of State community affairs agencies, during the time when they were writing the regulations as to how the money could be used.

We were in substantial disagreement with many of the regulations as they turned out. I think there might be possibilities in terms of what I see as a lack of flexibility in those regulations.

The other problem that we face is that a majority of the States, a majority of our State and other States consists of communities that are benefiting from 701 funding that simply don't have access to those community development block grant funds.

For all of the State of Illinois, for instance, outside of the entitlement cities, there is $6 million in community development block grant funds which means that they will be able to fund about 20 communities. Now all of the nonmetropolitan areas and many of the communities within the metropolitan areas that are under 50,000 population that are and have been benefiting from 701 funds simply don't have that alternative at this point in time.

In later years of the community development program they may have as the amount of discretionary funds increases but it will also require some different interpretations than we have received so far from the Department of HUD.

Mr. BOLAND. Planning gets to be a very expensive proposition for the Federal Government. This is not the only area in which planning funds are provided. There are some 24 or 27 spigots out of which planning funds come. That totals around $700 million. It is various kinds of planning, of course. Planning for functional programs, of course, does not necessarily assist the programs that we are discussing here, but it does become a rather large item of the budget. We have to try to get some sense into the planning programs of the Federal Government, and particularly within our own committee.

We appreciate very much your appearance here. I want to compliment you on your statement. We are delighted to have you.

Mr. KIRK. Thank you, I appreciate the opportunity.

Mr. SHIPLEY. If all the other States would use Illinois for a model, we would not have the problem.

Mr. KIRK. We enjoyed your visit to Illinois, Mr. Chairman.

Mr. BOLAND. Thank you.

[Mr. Kirk's prepared statement follows:]

My name is Frank A. Kirk. I am the director of the Illinois Department of Local Government Affairs. I am speaking on behalf of the Council of State Community Affairs Agencies. My comments are in reference to the lack of a fiscal year 1976 appropriation for the 701 program of the Federal Department of Housing and Urban Development. I would like to thank the subcommittee for this opportunity to be heard on a matter of critical importance to local governments in the country.

The Council of State Community Affairs Agencies is a national organization of cabinet level representatives from State departments of community affairs throughout the country. The purpose of the council is to promote the common interests and goals of the States with respect to housing and community development and other interests as reflected by activities of the State community affairs agencies.

Community affairs agencies emerged as the States' response to the need for comprehensive programs of assistance to local government. These cabinet level agencies, which have increased in both number and capacity in recent years, now exist in 40 States and are engaged in a variety of critical programs. Basically, their purpose is to assist local governments to strengthen their capabilities through more effective utilization of local, State, and Federal resources.

I wish to stress to you our grave concern over the future of the comprehensive planning assistance (701) program of the Federal Department of Housing and Urban Development. As you are aware, there are no appropriations for the 701 program in the fiscal year 1976 budget. A total of $150 million had been authorized for the program. We strongly urge that a $150 million appropriation for the 701 program be included in the fiscal year 1976 budget.

A failure to provide funding support for the program will have devastating consequences for local elected officials and communities throughout the country. The 701 program is of critical importance in helping to support the planning and management activities of local government's activities that are integrally related to their overall operation and functioning.

Let me talk in terms of specifics as to why the 701 program has assumed such a critical importance. My comments in this regard come primarily from three perspectives. First, I am here representing the Council of State Community Affairs Agencies and will share with you some of their perceptions of the importance of the 701 program. Second, Illinois, along with Massachusetts and Texas, is participating in a special study to demonstrate the usefulness of the 701 program. Third, my department (the Illinois Department of Local Government Affairs) is directly involved in administering and working with the 701 program.

Why has the 701 program taken on such an importance for local government throughout the country? Let me answer that by citing some of the essential contributions that the program is making. Of particular importance, local governments are using 701 funds to address a broad range of planning and management issues and problems that confront them. Thousands of local governments have effectively utilized 701 funds in this manner. The action-oriented results have been many and varied. The employment of 701 funds has resulted in such diverse specifics as the conducting of housing improvement activities, undertaking of annexation programs, adoption and employment of subdivision regulations and zoning standards, creation of a multicounty water district, establishment of a computerized housing information system, establishment of a county referral service for social service agencies, and the development of a rural road identification system.

Let me cite just one quick example of how the 701 program has been used to address a specific problem facing local governments. In my State of Illinois, a county was experiencing serious problems in ambulance service. Emergency medical services in the county ranged from nonexistent to deficient. The county, as part of its 701 assisted planning program, designed and assisted in the estab-

lishment of a countywide ambulance system. The results of this effort have been impressive. All crew members are emergency medical technicians, and virtually all of the county is within a 15-minute response time (the average response time in the more urban areas is 6 minutes). The countywide ambulance system has been responsible for many reductions in serious injury and the saving of several lives.

Funding under the 701 program has also been a critical source of support for the hundreds and hundreds of single and multicounty regional councils throughout the country, whether they be called councils of government, councils of public officials, regional planning commissions, or development districts. These agencies, with strong local elected official involvement and professional staff support, perform essential functions. They have been a source of help for thousands of committees in the country.

I personally know of many, many situations in which the professional staff of regional organizations have played vital roles in assisting local governments with their problems—including pressing annexation concerns, public facility deficiencies, specific public service problems, and particular growth and development issues. The technical assistance responses of these regional agencies have been both significant and often quite innovative. For example, in one State, a regional development council conducted training seminars and workshops for minority elected officials; another regional council of governments assisted a city with a total housing assessment survey, with the result being a 25-percent increase in the receipts of the city's tax collection; another regional council of governments provided key inputs into the overall development of a major international airport and directly helped nearby communities prepare for the impact of the airport and develop and adopt needed land use controls. In a number of other States, regional organizations are successfully employing a circuit-manager concept, whereby localities are receiving needed administrative and financial management assistance from a traveling city manager.

I wish to stress very strongly that the demise of 701 funding will spell the death of regional planning and development organizations throughout country. It will also be a crippling blow to the thousands of localities in the country that have depended on professional help from the regional agencies in dealing with their problems. This is particularly true of the smaller, impoverished communities that cannot afford their own full-time professional staff.

The 701 program has been essential in helping local governments to gear up for and effectively employ other Federal programs. For example, in Illinois, as in other parts of the country, many local governments desired to participate in the flood insurance program of the Federal Department of Housing and Urban Development. Often localities were confused about the program specifics or unsure as to the specific steps needed to qualify. Planning agencies, with 701 funding support at the municipal and regional levels, played key roles in providing the direct help needed to enroll localities in the flood insurance program.

Let me take even a more timely example. The Federal Housing and Community Development Act, which was passed into law last year, contains funding provisions for community development bloc grants. The act represents a major change in HUD grant programs for local governments and produces significant modifications in a community's application procedures. In Illinois, we have records of regional planning agencies directly helping more than 125 communities to prepare preapplications for community development funds. It is also significant to note that regional planning agencies in Illinois directly assisted the majority of those communities whose preliminary applications were approved by the Department of Housing and Urban Development.

The 701 program has also been an essential ingredient in fostering intergovernmental cooperation. The importance of local governments working together to cope with common problems is clearly recognized. Local governments throughout the country, with the help of 701 funds, are cooperatively addressing transportation problems, economic development needs, water and sewer problems, land use concerns, and public facility and public service deficiencies.

The result of such 701-supported intergovernmental cooperation often has been most significant. It has ranged from the establishment of cooperative purchasing programs, to the undertaking of cooperative solid waste disposal programs, to the shaping of growth and development strategies.

Often these intergovernmental efforts are dramatic cost savers. As one example, local governments in a metropolitan area in Illinois, with the partial help of 701 funds, are directing intensive study at the feasibility of establishing

a large centralized sewage treatment system to serve their needs. That system, if implemented, will result in construction and operating costs that will be 38 million dollars less expensive than if the local governments developed their own disposal systems on an independent basis. Another county, with the help of 701 funding support, is moving toward the establishment of a countywide water and sewer system that will have the capability to serve the needs of numerous communities at considerable cost savings. Examples such as these can be cited throughout the country, where the 701 program is fostering intergovernmental cooperation and resultant cost savings—a total in cost savings that should be carefully considered in deciding on the merits of a 701 appropriation.

The 701 program has never been static. It has an inherent flexibility that permits elected officials to respond to emerging planning and management issues. This flexibility has been critical as the nature of Federal-local relations continues to change. Through such Federal programs as general revenue sharing and community development block grants, local governments are being required to exercise more discretion and greater responsibilities. Coupled with this trend, there must be an equal emphasis on helping to strengthen the overall planning and management capabilities of local governments. In this context, the 701 program is and can be even more essential. The past involvement of local governments throughout the country in 701 supported planning and management activities was a major factor in the relatively easy transformation from HUD categorical grants to community development block grants. Continuing 701 funding support is essential if local governments are going to maximize their employment of general revenue sharing funds.

The 701 program also has been an essential tool in helping to tie together the many functional planning programs. Over the years, Congress has supported planning in the areas of transportation, health, law enforcement, economic development, water resources, and others. It is only through the 701 program that funding is provided to help coordinate and tie these many programs together at the local and regional levels.

A primary role of 701 funding is to build the overall planning and management capabilities of local governments. In some instances, this essential function has been overlooked, and statements have been made that the new HUD community development funds should be used to supplant the 701 program. This perspective totally overlooks the central role of the 701 program and the many essential differences between 701 and community development funding—notably that 701 funding helps to support a total range of local government planning and management and that the 701 program serves a much broader constituency of local governments.

In closing, it is our strong belief that a failure to restore 701 funds in fiscal year 1976 budget, at the $150 million level, will have disastrous consequences in the country. The impact will be varied and broad-ranging. It will effect, the following: (1) a serious reduction in the planning and management capabilities of local governments, (2) particularly at a time when Federal programs are increasingly geared to having local governments assume more discretion and greater responsibilities within the framework of local and Federal relations; (3) the demise of regional planning programs throughout the country; (4) a resultant loss in the accessibility of local governments to professional technical assistance, of particular importance for the smaller, impoverished communities; (5) a seriously reduced capability to coordinate the various functional planning programs at the local and regional levels; (6) and a crippling blow to the encouraging signs of strengthened intergovernmental cooperation.

Finally, the $150 million appropriation level for the 701 program can be justified from another perspective. As you are aware, the fiscal year 1975 appropriation for the program is $1 billion. There are a number of compelling factors that call for an increase in that appropriation figure. These range from the continuing impacts of inflationary pressures, to the fact that local government requests for 701 funding support will far outstrip the available 701 resources in fiscal year 1975, to the clear realization that local governments are being required to assume increased responsibilities within the framework of Federal-local relations, and to cope with a whole series of emerging, complex public issues and problems. The latter included increasing concerns in the areas of energy, land resources, inflation, local government finance, and housing.

WITNESS

THOMAS F. FARRELL, COUNSEL, GANANDA DEVELOPMENT CORP.

Mr. Boland. Our next witness is Mr. Thomas F. Farrell, Counsel, Gananda Development Corporation. You appear here with reference to the HUD program on new communities.

Mr. Farrell. That is correct. I wish to thank the committee for the opportunity to appear before you to give title VII ideas on the program generally and specifically some comments and clarifications on the staff report. We have submitted a written statement. I will try to synopsize portions of that here.

Basically, I think it is best to outline how Gananda as a new community began. It began with the support of various community and business leaders in the Rochester, N.Y., community in conjunction with two towns, two counties, three school districts and the New York State Legislature all of which had to take action in order to make a new community possible.

Gananda, its management, undertook to develop a new community under what they considered to be a public-private partnership with the Federal Government. As envisioned at the time, the founders of Gananda felt that there was not to be strictly a borrower-lender relationship but one in which through guarantees of rather small front end costs, capital construction upwards of $1 billion could be accomplished in various parts of the country. These communities were seen as a possible way of reorienting some of the urban growth which had created many problems for the cities, many of whom have been in here today.

At the time Gananda got its initial guarantee Secretary Romney praised the plan as being very creative, one of the best he had seen to that time. Innovations were undertaken. We attempted at all times to comply with both the letter and spirit of the law.

In this regard, new housing patterns were developed which have been features on cover stories in House and Home which we felt would do much toward achieving the economic and racial mix envisioned by the act.

Unlike other new communities, we began planning the physical development first from the social point of view. Since we are to develop a new community of 56,000 people, we first began to determine how they should live and then plan a site around that. Key to these were multiuse facilities under which normal public schools would be in combined-use buildings with community facilities. This would generate cost savings to taxpayers both in the operation and maintenance of the school and would reduce some of the erosion of tax base which has plagued some other urban areas by a variety of nonprofit corporations entering the areas, by churches and many other types of charitable organizations.

This plan has been studied extensively. It has received nationwide attention. The Educational Facilities Laboratory indicated it was something which might be a breakthrough in terms of community-shared space.

All of this, however, was not without problems. It required a special act of the New York State Legislature, in fact, four different acts required first a joint zoning ordinance by two towns in conjunction with their county planning board, the planning board of adjacent Monroe County and in conjunction with the regional planning board.

Mr. BOLAND. Why is it in financial difficulty?

Mr. FARRELL. Its financial difficulty is mainly caused by the fact it was underfinanced from the beginning. Thirteen months prior to the time of the initial closing of the $22 million guarantee it was seen by HUD and the Gananda that $22 million would be inadequate to handle the peak debt load.

However, at that time all the land was tied up under option and there was a danger of losing it. The closing was 12 months later than anticipated in planning.

So it was agreed to go ahead with the $22 million figure with the understanding that Gananda would be able to come back for additional guarantees in the next year. Therefore, our project agreement had substantial differences from other agreements with the United States.

Following the time this guarantee was taken down, we began the normal zoning approvals which must be obtained to get building permits for the various infrastructure items, specifically a sewage treatment plant and a school, roadways, all of which required approval by the local planning boards under State law. This process could have taken 18 months, but by extreme effort by the municipalities and the corporation it was done in 8 months. That began a 12- to 14-month construction period at the end of which time we had a sewage treatment plant done with the capacity to handle 2,500 units, a school although not completed was open and 125 students were in attendance.

All roadways and utilities and infrastructure items were ready for sale. In addition, approvals had been obtained from the New York State attorney general, which would permit sales to the consumers of the ultimate units.

In the fall of 1974 Gananda had contracts with builders to construct 385 units within 2 years. We were under negotiations with other builders who were to build between 250 and 300 units within 18 months. In addition we were in negotiations with a shopping center developer for the first commercial area. Most importantly, we had achieved what everyone knowledgeable in a new community area agreed was prime to developing a true new community, that is a major industrial sale at the front end.

Taylor Instrument Division was within 3 weeks of finalizing a contract to buy 116 acres to build a plant and to locate their division and employ 1,500 people within 5 years and ultimately 2,500 people on site.

As a result of this mortgage, commitments were available for housing.

Mr. BOLAND. What is the solution to your financial problems? You have some serious financial problems, apparently. Do you still have an application pending for a $26 million loan guarantee?

Mr. FARRELL. We applied for an additional $26 million in September of 1974 at which time the Department of Housing and Urban Development disagreed with the market capture rate within that application and with certain equity requirements. Our first notification of

this was a freeze of all funds under the prior commitment which cost us the sale to the industrial tenant, cost us every one of our residential sales and the commercial sales.

In addition financing for some $3 million which we had underway was canceled because of the uncertainty of the commitment of the Federal Government to a project that was guaranteed by the Federal Government.

Mr. BOLAND. Was there any indication by the Federal Government that if the project was able to raise $5 million in additional equity that the $26 million application would be approved?

Mr. FARRELL. Starting in October we began negotiations at which time they indicated $2½ million in equity would be necessary plus $2½ million in land purchase agreements. It was necessary for us to obtain the signature of some 40 shareholders to personally guarantee the land purchase agreements and our banks which had loaned $9 million to the project subordinate to HUD were required to sign an agreement to take no payments of principle and interest for 3 years.

After 2 months we obtain the necessary signatures and brought the agreement back to HUD for their signature at which time they refused to sign purportedly on the basis of some other consultant reports which had been done for them.

Then on February 6 we again received notification from the Board of the new Community Development Corporation. At that time they directed the Administrator not to release any more funds from our initial guarantee.

From that point we again—for a 3-week period no one from NCA would talk to us.

From the intervention of our Congressman we finally began discussions again, at which time the figure for equity had been increased to $5 million and $5 million in cash flow guarantees were required.

So a total $5 million investment was increased to $10 million. We feel in the main that the Department of Housing and Urban Development has concluded that we will be unable to raise this although as the report we submitted indicates, we do have indications that we can obtain the necessary funding.

But we are not receiving a cooperative attitude from the Federal Government which is our partner. We are here before the committee to suggest that HUD at this point has two alternatives. They must either foreclose or refinance. We are not aware of any appropriation request for any money for foreclosure, yet in the event they did foreclose they would probably trigger a rezoning of the land by the localities and would most likely sustain a complete loss on a $22 million debenture. That is more than the total funds available for the new community administration within their funds.

We would like to point out what foreclosure would do. First of all, in addition to the large appropriations we feel would be necessary on the Federal Government's guarantee the local governments, and particularly the school district would be in serious jeopardy. A new school district was formed to accommodate this new community and is now on the verge of insolvency. It has a partially completed building which has a loan on it for $22 million to the U.S. Government. It has been unable to find any Federal program within which to either complete the building or help it carry its debt load for the first few years.

Taxes to the residents within the school district would be at least doubled. Real estate taxes for anyone in any part of the surrounding areas and New York State's real estate taxes are quite well known at this point. In a way it would make the real property owned by existing residents within the school district unmarketable. The contractors presently are owed in excess of $3 million. They were caught unawares as were we by the Federal Government's action. We estimate as many as 20 of them will go into insolvency if this does not go forward.

Hundreds of people have been laid off as a result of this inability to pay. There is loss of revenue to the Federal Government through these jobs. There is the housing market, in spite of the bad economy, we were able to sign substantial contracts for housing.

That developed land will not be available to these contractors.

Mr. BOLAND. There was one industrial buyer interested in over 100 acres in the project. This committee had an investigation made of new community assistance by our investigative staff. Reading from that study:

> In order to attract the firm, Gananda offered the property for $2,500 per acre, compared with security pool valuation of 5,000 to 6,000 per acre. NCA felt this was not "arms length" since the Gananda Board Chairman was an honorary Chairman of the potential buyer.

Mr. FARRELL. The offering price is properly set forth there. The chairman of the Board of Gananda was in fact the honorary chairman of the board of Siborn Corp., but did not take part in any of the discussions. The $2,500 price was set by Gananda in order to attract the industry which otherwise had land that might have been considered more available for a spot for that. It was for our development.

Mr. BOLAND. If the security pool valuation was $5,000 to $6,000 per acre it would be pretty difficult to have the NCA feel it should be sold for $2,500.

Mr. FARRELL. Well, in order to attract industry to the area to start the County Economic Development Corp., we felt it necessary that we give them a break on price.

Mr. BOLAND. All of the new communities throughout the United States, some 14 I guess there are, are all in difficulty. The investigative staff report clearly indicates that that is so.

One of the problems that constantly appears in their evaluation of the approval of the new communities was that the projects were not really feasible at the outset.

HUD, of course, and NCA has to assume some responsibility for that because the applications were filed with them. This was a preliminary application and I presume your people, on the basis of that preliminary application, were told to go ahead and submit a full application and it was finally approved. So if the project was not feasible, then, I think, NCA should have realized that at the start.

In any event, where does that leave you right now?

Mr. FARRELL. It leaves us now in the position of undertaking a public-private type of venture to try to alleviate the total burden on the Federal Government and yet having $13 million in private capital at risk by the unwillingness of our partner to go forward.

This unwillingness began 2 weeks after we obtained our funding. The freeze on the Federal grants, which were an integral part of this program, was enacted. No interest loans were ever given. We feel that

the Federal Government at this point has attracted an attempt to undertake a partnership with private enterprise and at this point has risked not only the $350 million that is in the total program but nearly as much private money is at risk and that if some steps are not taken by the administration to bolster the program that the money will be lost with no gain.

Mr. BOLAND. The danger is that increasing the loan guarantee or approving the $26 million application that was filed in September of 1974, of course, increases the loss to the Federal Government if the project goes under. Reading again from the report, "Foreclosure cost, a consultant hired by NCA in December 1974 said that project losses to date probably exceeded $20 million, of which the Federal Government would have to absorb at least $15 million under foreclosure and liquidation." But if the application for additional guarantees were approved and if the Gananda project still is in financial difficulty, then it would, of course, result in a greater financial loss to the Federal Government. More than the $15 million under foreclosure liquidation which is mentioned in our investigative report.

Mr. FARRELL. New feasibility models run on the NCA computers indicate that the project is viable with the infusion of new capital and with additional guarantee.

Mr. BOLAND. Have you proved this viability to the NCA?

Mr. FARRELL. That is right. As of 60 days ago we finally obtained an informal agreement, not written, which indicated that they would recommend a $22 million guarantee if we obtained $5 million in equity and $5 million in land purchase guarantees. That is what we are doing but we feel that much of the mode of HUD is backing away from this program and its foreclosure. They are more willing to take appropriations for foreclosure for no benefits than to go forward to bolster and encourage the public-private developments in the future and to save those innovations and the experimental value of the communities in existence.

We feel that this committee might direct that HUD cooperate with the new communities and find methods of restructuring them on a cooperative basis.

It might be recognition of the fact that substantial appropriations will be necessary to foreclose. I believe one consultant has estimated a $150 to $200 million loss at this point. They could substitute much lesser amounts to give some aid. We have not obtained a Federal grant of any kind, nor have the localities we are in. In addition we have paid $1 million to HUD for a guarantee.

Mr. BOLAND. What about the position of the State? You anticipated State funds for the multipurpose village center and that they would be received in January 1975, but receipt has now been delayed from the State and this seriously upsets the financial situation.

Mr. FARRELL. The reason these were delayed to begin with was that they were dependent upon the lease from the school district which was a substitution of the bond issue.

Mr. BOLAND. In addition to competition with regular developments around Rochester? Gananda must also compete with Riverton, another new community.

Mr. FARRELL. They are entirely different.

Mr. BOLAND. How far from each other are they?

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Mr. FARRELL. They are approximately 25 miles on opposite ends of the city in opposite growth quarters. They have different attractions to different industries. We have never felt they were competitive.

HUD, at the initiation did not feel they were competitive. The only reports to prove lack of feasibility have been very quickly prepared under very strict instructions.

A market study was prepared under which we were not consulted nor was any member of the regional or county planning board. We submit that inadequate studies at this point, at this point, when they are facing losses, are as bad as inadequate studies they might have got about some of the new communities at the beginning. We are sort of in a position that the administration or HUD is indicating that we are unfeasible and therefore by lack of cooperation may in fact prove themselves correct. One of the things that we do feel should be investigated by this subcommittee is exploring a way to secure the financial interest of the United States to recognize what risk the Federal Government does wish to take to make a program go forward.

We don't feel that the act envisioned a commercially bankable loan to begin with since the purpose for the loan was to make money available where it otherwise would not be.

Secondly, we feel taking the financial aspects out of the HUD and placing them in some Federal finance bank might alleviate many of the problems in an adversary relationship that has occurred between the developers and HUD and permit HUD to concentrate on the partnership aspects of the act and the social goals to be obtained for the benefit of the United States.

Mr. BOLAND. What about the statement that even now NCA and its consultants feel that the rates currently proposed by the developer are at least double the realistic market capture rate?

Mr. FARRELL. As I said, we had at the time this statement was made, we had an appraisal made by a major appraisal firm in Philadelphia who was chosen by HUD that agreed with our recapture rate. But for the purposes of the development we have accepted the rate which the staff of NCA feels is reasonable.

We feel it is unreasonably low and as a result it generates the need for a disproportionate amount of equity and cash flow guarantees.

We are now in a position, and under the current policy we are in a position of having the Federal Government guarantee a debenture issue by the company if individuals will guarantee the Federal Government against loss.

Now this was not envisioned by the act and it was a reversal of the position taken by Congress when the act was enacted.

Mr. BOLAND. There has been some concern by many on whether or not the New Communities Act is workable, and whether or not it will do what some of the sponsors believed it would do at the time it was passed.

All of the new communities are under serious financial burdens. Because of the economic situation, the inability to sell homes, to sell lands, these communities are experiencing some very serious problems at the present time.

I would appreciate it if you would detail for the record how you think Gananda can get out of the problem.

[The information follows:]

GANANDA DEVELOPMENT CORPORATION,
May 19, 1975.

Re: HUD—Independent agencies—Statement regarding solutions.

Hon. EDWARD P. BOLAND,
Chairman, Subcommittee on HUD—Independent Agencies, Rayburn Building, Washington, D.C.

DEAR MR. BOLAND: You have asked that, in addition to our prepared statement and testimony, we submit to the committee a supplemental statement which sets out a proposed solution to the problem facing the Gananda New Community. As we indicated in our prepared statement submitted to the committee on May 14, 1975, we have reached an understanding with the new communities administration whereby we are to secure $5 million new cash equity and $5 million in cash flow guarantees in turn for which the NCA will recommend that the board of directors of the New Communities Development Corp., that an additional $22 million in debentures be guaranteed by the Secretary.

This requirement is essentially a requirement of $10 million new cash equity in the project and will be difficult, if not impossible, to achieve in today's market. We are, nevertheless, working toward meeting the requirements because of lack of a viable alternative. We do, however, object to the burdensome nature of NCA's demand and the fact that they have refused to acknowledge this arrangement to us in writing.

This cash flow guarantee arrangement, which is essentially a guarantee of the Federal guarantee, is something we feel was never contemplated in the authorizing legislation. The necessity for the guarantee stems from several runs on the NCA computer which show that the substantial carrying costs involved in $44 million of debt require some form of contingency planning. We would agree that some form of contingency planning is necessary but that the equivalent new cash equity is not the solution for this problem.

It is our feeling that the legislation has already made provision for such contingencies. The continued use of the Secretary's discretionary fund with set-asides for new communities is one way of alleviating the potential cash shortage in times of economic downturn. While title I funds are one method of alleviating the potential problem, a primary method for leveling out cash flow problems in periods of recession is the interest payment loan authorized under title VII. These interest loans have never been implemented despite the fact that new communities along with the entire housing market have gone through a severe slump. As we envision their usage, such interest loans would allow timely payment of debenture interest despite cash flow problems in lean years. Repayment of these loans would occur in boom periods.

Title VII also authorizes a waiver of the fees collected annually by NCA from the New Community developers. Implementation of this section of the legislation is also a way of lessening the financial burden on the developer in recession years. Despite the obvious financial crises experienced by many of the new communities, we are unaware of utilization by the NCA of this section of the statute. To the contrary, these fees have been collected to the exclusion of payments to contractors and mortgagees.

In view of all of the above, we suggest that the solution to the Gananda problem lies in the requirement for $5 million in additional equity, a $22 million additional Federal guarantee, implementation of interest loans when necessary, waiver of NCA fees and occasional title I or comparable grants when justified for social or experimental purposes. We feel that cash-flow guarantees are contrary to the purpose of the act and, therefore, should not be part of the Gananda solution.

Of immediate importance in any solution to the Gananda problem is the question of the interest payment due on June 15, 1975. That semiannual interest payment is $785,000 and far beyond the cash available to the corporation. Gananda does have in its escrow account approximately $550,000, which is being withheld by NCA. We would propose that these funds be released to Gananda with the proviso that $500,000 be used toward the interest payment and the balance be used by Gananda as operating funds during the period necessary to arrange the above refinancing. We would ask that the balance of the interest payment due be arranged in the form of an interest loan from NCA. A resolution of this upcoming interest payment problem would go a long ways toward solving the problem of a potential loss of the taxpayers of approximately $20 million.

The above suggestions are not the only method of resolving the Gananda problem, but we feel they are probably the least expensive alternative to the Federal

Government and are the methods most readily available for immediate implementation. They are based on the concept set out in title VII. At the present time these concepts do not have much favor at NCA, and we will continue to work within the NCA parameters.

The NCA computer runs show the new funding to be a feasible solution which would not jeopardize the additional $22 million in guarantees. We believe this to be the case and further suggest that the NCA projections are conservative especially in light of a potential upturn in the real estate market.

We hope this information will be of assistance to you and the committee and we again thank you for the opportunity to appear and present a view of one new community. If you or any other member of the committee have any further questions, we remain available at your convenience.

Sincerely,

JAMES A. O'BRIEN, *Counsel.*

As I indicated, Gananda is not the only new community that has problems. They all have problems. I presume that most of the problems are probably common to each of the new communities that are now in existence.

Mr. FARRELL. That is correct.

I think that we would feel that if we were to characterize the problems that have transpired in all the new communities we would first say that nearly all of them were underfinanced from the beginning and have been suffering from a grievous lack of support.

We feel that if they are to succeed there must be something written into the law, some protections to prevent the private moneys from being at risk because of cyclical changes in policy by the administration.

Since we are to undertake 20-year programs with a Federal partner there must be some way of assuring a partnership approach by the Federal Government.

We thank you for the opportunity of appearing. We will detail this for the record, the methods we feel we can use to get out of this problem and save both our project and the Federal Government's investment.

Mr. BOLAND. I take it that your statement indicates that there ought to be some change in the basic law which established the New Communities Act.

Mr. FARRELL. We believe it does have to be strengthened. I believe part of this is caused by the lack of trust now in the financial community with the policies of the Federal Government.

If this private investment in a long-range Government goal is to be attained there has to be some way of regaining that assurance. In our case we have $13 million in private capital in the project. If we are to go forward we must obtain more.

Mr. BOLAND. Thank you very much, Mr. Farrell, for your appearance here.

[The Gananda statement follows:]

Background

The purposes of the Urban Growth and New Community Development Act of 1970 (title VII) are just as valid now as they were in 1970. The problems of urban America, with urban decay and suburban sprawl, need long-term creative and comprehensive plans and solutions. The private financial and construction sectors cannot alone afford the long-term risks and high front-end capital expenditures necessary to overcome the monumental social, economic, and environmental problems involved in developing a new community over a period of some 20 years.

The act provides for a partnership between private enterprise and the Government. Instead of infusing the massive amounts of public funds which would be

necessary to redirect the Nation's urban growth, the Government was to guarantee debt obligations of developers and give other assistance and obtain as its "equity" the maintenance of certain programs and construction of certain types of housing within the new community. In general, the governmental role was to stimulate the development by the private sector and to then guide that development to be sure that certain national objectives were met. In general, by guaranteeing relatively small amounts of front-end development costs, projects with private sector capital construction in excess of $1 billion become possible.

Gananda's developers have conscientiously tried to create a new community consistent with both the letter and the spirit of the act. The Gananda investors are private individuals, most of whom are community leaders who have been involved in many community and civic projects on a local, State, and National level. In many cases their reasons for investing was to help the locality and to fulfill the true spirit of the act.

Program

Although Gananda is just starting its development, many creative solutions have already been found for some of our urban problems.

Residential areas were designed around housing clusters which are related to open-space areas rather than streets, which allow for more complete and easier economic and social integration and which can be money-savers for potential homeowners. These new housing patterns for Gananda were extensively reviewed in a cover story of the national publication House and Home in October 1973.

The entire community was planned around multiuse facilities which include the public schools, as well as library, health cultural, and recreational facilities. In this manner, the development would be able to provide more community amenities and at a lower cost to residents. In addition, maximum utilization of public buildings would be attained and the erosion of tax base which has plagued urban areas would be slowed. Realization of this concept was not without its difficulties. Special legislation was required from the New York State Legislature to establish a separate new community school district and to allow for community ownership and use of the multiuse facilities. This system is the first of its kind in the Nation and has been hailed as an outstanding accomplishment by many organizations including the educational facilities laboratory which extensively studied the program. The first multiuse school facility received a national commendation from the American Institute of Architects and the National Institute of School Administrators.

Gananda planned for major energy savings long before the fuel shortage. The housing clusters and the community multiuse facilities all related by convenient pathway systems allow for more amenities without the need for a second car or school busing. Gananda's location on a major mass transit corridor will provide long-term economies in transportation to and from downtown Rochester. The multiuse facilities are by themselves energy savers since a variety of users are under one roof rather than in several locations. In addition, the first multiuse facility has an advanced heating and cooling system which utilizes deep ground water to achieve energy savings.

Substantial efforts have been made toward an open community by concentrating on bringing in small local homebuilders who provide a wide variety of quality housing. Tree preservation has been a primary concern as has been maintenance and improvement of the environmental quality of the area. The water quality of Black Creek which runs through the first development area has actually improved despite major construction activity. Provision has been made for management and protection of large natural wildlife marsh areas in the project. Preservation of the character of much of the land will open new opportunities to segments of the population previously bound to urban existences.

The variety of innovative programmatic plans of Gananda caused George Romney, the Secretary of Housing and Urban Development at the time of the initial $22 million HUD guarantee, to praise Gananda as "a concept that breaks new ground." He stated that the Gananda plan "is highly commendable and fully consistent with the President's view that new communities shall be designed for people, all Americans, and offer them greater opportunities to enjoy a better quality of life in a vastly improved environment."

Initial financing

The guarantee of $22 million by the Department of Housing and Urban Development and the sale of Gananda's debentures took place in December 1972.

Thirteen months prior to that date, however, top staff members of the Office of New Community Development and Gananda's developers agreed that the then proposed $22 million guarantee would, in the long run, be inadequate. It was agreed that Gananda's peak cash requirements necessitated a substantially larger commitment and that at the $22 million figure, Gananda would be underfinanced and would run short of cash. Furthermore, it was agreed that the economic analysis of the Rochester metropolitan area and the Gananda project justified a larger commitment.

Because much of the Gananda acreage was under option and might not remain under control in the event of a prolonged delay in the HUD processing, and because the HUD staff stated that reprocessing the loan application for a substantially larger guarantee would in fact cause a considerable delay, it was mutually agreed between HUD and the Gananda developers that both parties should continue processing of the application for the $22 million commitment and that Gananda would submit an application for an additional HUD guarantee at a later date. Both William Nicoson, the Director of the Office of New Community Development and Edward Lamont, his successor, were involved in those discussions and agreed with the decision to proceed with two-step funding for Gananda. Because of this understanding and the knowledge that Gananda was underfinanced, the Gananda project agreement differs in some respects from other agreements as, for instance, it provides for a reappraisal of the property within the first calendar year and provides a lower ratio of "net current assets" than required in earlier agreements.

Progress

Following the closing of the sale of its guaranteed debentures, the developer began the long process required by State law for planning and zoning approval. By a maximum effort this process, which began with approval of the overall concept and ended with building permits for the first development area, was completed in 8 months rather than the 18 months State and local laws would have permitted. Following these approvals which came in August through October of 1973, the developer began a 12-month period of land development and building construction.

By September 1974, the project had made substantial progress. The first school/community multiuse facility was substantially completed and the school district was operational with approximately 125 students attending classes in the new school. The sewage treatment plant with a capacity sufficient for 2,500 dwelling units was completed as were all roads and utilities in the first development area for approximately 540 units. A lake which was to be the focal point for sales in the first commercial area and for the information center was completed and the information center was ready for opening.

Contracts had been entered into with three home builders who were to construct 385 units over a 24-month period. In addition, the developer was in negotiations with another builder who intended to build 150 apartments within 1 year and 300 units in 3 years, and with 4 other single-family builders, each of whom were negotiating for the acquisition of some 15 to 30 lots with options for additional lots. Attorney General approval which was necessary to permit sales to consumers had been received and the developer was negotiating with a shopping center developer for the construction of a convenience shopping facility on the site.

Most significantly, the developer was negotiating with the Taylor Instrument Division of Sybron Corp. which was to purchase 116 acres of land within the project. These negotiations were considered crucial, since Taylor Instrument planned to have one plant of 100,000 square feet open in 1975, would have 1,500 employees on site within 5 years and would ultimately have some 2,500 workers within the project. The developer felt strongly that by having industry in the new community at the earliest stages an accelerated growth rate could be accomplished and a truly diversified community could be realized. In addition, by selling this industrial land 3 to 4 years earlier than had been projected, the developer would save nearly $1 million in projected taxes and required contributions to the community association.

This activity by the developer did not go unnoticed by the new communities administration. In August of 1974, at a meeting of all New Community developers with the administration, Gananda's program and management was praised, although it was acknowledged that a new guarantee would still be necessary. At approximtaely the same time, Alberto F. Trevino, in a conference with Congressman Frank Horton, stated that if Gananda was not the best of the new communities, it was the second best.

New communities administration actions

In January 1973, just days after the Gananda project was funded, the Nixon administration began what has become a steady withdrawal from the commitments purportedly undertaken in the act. At that time, a freeze was announced for all of the grant programs which were included within title VII. Interest loans, which were provided for in the legislation were not funded and technical and planning assistance was either not given or was given so sporadically as to be without real value. From the time of the initial closing with Gananda, NCA's sole commitment to the program appeared to be the guarantee and the protection of the security interest of the United States. Attempts at innovative financial and social solutions were either rebuffed or delayed to such an extent that the entire project was set back. Routine requests by the developer went unanswered for lack of an adequate NCA or OGC staff. Further delays were caused by policy conflicts between NCA and OGC. As a result, no actions were taken until the matter had reached the level of crisis.

As indicated previously, Gananda and the Office of New Community Development had been aware since 1971 that Gananda would experience cash flow problems because of the low level of its initial financing. By early 1974 it was clear that these problems would be acute by year end unless additional funding was received.

At a meeting at the NCA offices on June 5, 1974, it was agreed that NCA would accept an application for an additional guarantee and would accelerate its application process. Gananda was to complete submission of the application by September 1 in which event the request for the additional guarantee would be submitted to the board of directors of the New Community Development Corporation in October. It was pointed out that Gananda had other projected sources of financing to assist it in continuing until 1975, but that an early draw from escrow would be required to help fill the gap. NCA indicated that such a request would receive favorable consideration.

On September 12, 1974, after completing the application for additional guarantee assistance and after satisfying NCA requirements for an early draw, Gananda submitted a request for the release of the balance of its escrowed funds. On September 30, in a complete reversal of position, NCA informed Gananda that the requested draw from escrow would not be permitted because of NCA objections to the contents of the application for additional guarantee. A meeting was immediately scheduled to discuss the "problems with the application." Specifically, NCA disagreed with Gananda's market absorption rate and the method by which equity was to be brought into the project. It became apparent that the "rule and regulations" under which Gananda had been operating had been changed by HUD. In particular, HUD now defined hard equity as "cash equity" rather than including moneys actually expended for land acquisition and development. In addition, it appeared that HUD had determined that no new community could obtain more than 7 percent of the new housing in its SMSA.

Despite pleas by Gananda for release of the escrow funds, and despite all signs that the "rose was about to bloom," NCA refused to permit a draw and refused to give assurances which would save a major industrial site. As a result, on October 4, 1974, Gananda released the majority of its staff and all work was stopped when contractors were advised that promised payments would not be forthcoming. Taylor Instrument Co. and builders who were negotiating for the purchase of land refused to go forward until matters were resolved between the developer and HUD. In addition, financing which would have provided $2.2 million to the project in 1975 and would have provided a vehicle for financing all community facilities, was lost.

Following an October 8, 1974 meeting, the parties entered into negotiations to prepare an agreement which would set forth the conditions under which the NCA staff would recommend an additional guarantee. These negotiations resulted in a memorandum of understanding which provided that the NCA staff would recommend an additional guarantee of $20 million if Gananda would provide $2.5 million in cash equity. In addition, three banks which had loaned to Gananda as well as other affiliated companies would have to agree to take no payments of principal or interest for 3 years and the shareholders of Gananda's parent corporation would have to agree to guarantee cash flow of the company by contracting to buy up to $1 million worth of land if the projected cash flow was not realized for the first 3 years. In addition, $2.5 million in

other cash flow guarantees would have to be received before the closing of the guarantee.

NCA agreed that as soon as 66⅔ percent of the shareholders of Gananda's parent corporation had signed the memorandum of understanding, funds would be released from escrow and the application would be submitted to the board. Over 75 percent of the required shareholders signed but HUD refused to permit release of anything but minimal amounts of the escrow funds. The board of directors of the New Community Development Corporation did issue a resolution, but it did not amount to the conditional commitment the developer believed was promised. Instead it merely authorized the general manager to proceed along lines set forth in the memorandum. On or about December 6, 1974, the last of Gananda's banks executed the memorandum of understanding. In spite of this NCA continued to refuse to permit anything but minimal draws with the notable exception that it requested payment of its fee and debenture interest and refused to execute the memorandum of understanding although Gananda had obtained the necessary signatures and although NCA had previously indicated it would sign when the shareholders and banks had. Although the decision to stop draws and to reject the application was made without any studies, NCA has justified its abrupt about-face by pointing to reports later prepared at its request and instruction by Larry Smith & Co. and Brooks, Harvey & Co., Inc. The Larry Smith & Co. report questioned the market absorption rate used by Gananda in both its original application and in the application for an additional guarantee. On analysis, this report proved to be very limited, contained many errors of fact and contradicted two other in-depths studies prepared on the project—one by appraisers chosen by NCA which supported Gananda's projected market pace and one prepared by the same Larry Smith & Co. together with the Genesee/Finger Lakes Regional Planning Board for the regional office of HUD. An analysis of the defects in the report completed for NCA is included herewith (see appendix "B").

The report by Brooks, Harvey questioned the overall feasibility of the project. Many of its conclusions were dictated by information obtained from the Larry Smith Report and by its author's view that the Government should not be involved in the new communities program (see appendix C).

It should be stressed that both reports were commissioned by NCA after the funds had been frozen and Taylor Instrument Co. had withdrawn from negotiations.

On February 6, 1974, the board of directors of the New Community Development Corp. passed a resolution directing the general manager to prevent further releases of funds to Gananda and to take such other actions to protect the security interest of the United States as he deemed necessary. Although Gananda had been receiving funds at any rate, the formal board announcement caused further adverse results to Gananda. It was particularly harmful in that it came at a time when Gananda was beginning negotiations with potential equity partners and was within 10 days of finalizing a commitment to borrow $1.1 million to complete the neighborhood center. In addition, the developer had recently obtained the approval of the New York State attorney general for its community associations and was thus in a position to sell land to builders. As a result of the announcement, the commitment for State financing was withdrawn, the registration was tabled and negotiations with equity partners were stopped until the developer could ascertain NCA's intentions. Determining this position was made particularly difficult by the fact that for 3 weeks no one from NCA would talk to the developer except to refer to the prepared press release. In addition, Gananda's NCA project officer was transferred and no replacement was named.

Later in February, after intervention by the Congressman from the Gananda area, communications were restored on a limited basis. New ground rules were established by NCA, based upon the conclusions of the HUD-commissioned Larry Smith and Brooks, Harvey reports. The equity requirement was increased to $5 million and cash flow guarantees were likewise increased to $5 million. During these negotiations, several models were run on the NCA computer, several of which would have required less equity and guarantees, but in each case the market absorption rate was lowered so that $5 million equity plus $5 million in cash flow guarantees were required. Gananda has now received indications from a major equity syndicator that $5 million in equity can be raised and the developer is now attempting to obtain the $5 million in guarantees. The developer's task in raising these guarantees has been made much more difficult because of recent bad publicity regarding the new communities program in general and

Gananda in particular. In spite of this, however, the developer is confident that the requisite funding can be obtained if NCA cooperates with its endeavors and appears to want to solve the problem.

Present financial condition

Gananda is presently staffed by only five people whose sole task is to raise sufficient money to obtain the additional guarantee that HUD acknowledged was necessary in 1971. Five hundred fifty thousand dollars ($550,000) of Gananda's original debenture issue remains in the escrow account but NCA has prevented it from obtaining the funds.

Real property taxes which are superior in lien to the HUD mortgage are unpaid because of the lack of funds and the Gananda Central School District, formed to accommodate the new community, is on the verge of collapse. The multiuse school building is incomplete and unless the project continues, the school district will be unable to raise sufficient revenues to operate beyond the next school year. Dissolution of the school district is nearly impossible because of State laws which require referenda by three school districts and an act of the New York State Legislature.

Private financing which might have alleviated the burden on HUD and permitted the project to go forward during the interim has been lost because of the unfavorable publicity generated by NCA action. In addition, because of the uncertainty of NCA's attitude and the attendant withdrawal of the registration approval by the New York State attorney general, the developer has been unable to sell land which might have raised sufficient capital for it to proceed. Attempts to obtain other types of funding from private sources by pledging developed land have been rebuffed by NCA's unwillingness to release land from security, although the project has sufficient excess security to justify such a release.

Although no payments have been made to mortgagees senior to HUD since October, no foreclosure actions have been commenced. In addition, creditors are presently owed in excess of $3 million. At the present time various banks have loaned the project in excess of $5 million and an affiliated corporation which holds land subject to an option to Gananda and the Secretary of Housing and Urban Development has borrowed $4 million from another bank. If the project does not go forward as many as 20 contractors face bankruptcy and one bank to which Gananda owed $1.2 million is presently under FDIC receivership. In all, the private investment which will be lost if the project does not go forward is in excess of $13 million.

In spite of this picture, computer analyses by NCA and the developer have indicated that the project can go forward if an additional guarantee of $22 million is received and equity of $5 million is raised. Most of Gananda's creditors and many of the mortgagees holding a senior position to HUD have indicated a willingness to work to restructure the financing. In addition, Gananda is working with the units of local government to try to assure that neither these entities (particularly the school district) nor residents residing within the new community district are financially injured.

The future

The future for Gananda can take one of two major courses: foreclosure or refinancing. Of the two, foreclosure would be the least desirable for the Federal Government, the units of local government and the developer and other private individuals and corporations which have invested time and labor in this Federal program. Gananda trade creditors are presently owed in excess of $3 million, have laid off several hundred employees as a result of recent NCA actions and several are on the brink of insolvency. Commercial banks which loaned Gananda nearly $9 million would sustain total losses. The new school district whose innovative educational system has received nationwide attention and which was formed to accommodate the new community is on the verge of insolvency and is without the means under existing legislation of dissolving and dividing its property among surrounding school districts which are themselves overcrowded. As a result, children in attendance at the school would be faced with inadequate education facilities and taxpayers within the district would be faced with an impossible tax rate which might render all property with the district unmarketable. The towns in which Gananda is located, the county and the regional planning board, all of which have spent considerable time and money to change plans to accommodate the new community, would be faced with the potential of having to redo all of the planning accomplished over the past 3 years.

Foreclosure by HUD, purportedly to protect the security interests of the United States would most likely in fact injure that interest. If the project were to be stopped and foreclosure started, it is likely that the municipalities would rezone the land. The Federal Government would then be in a position of liquidating nearly 6,000 acres of land at reduced prices and might, in fact, incur a total loss on its guarantee. The time involved in going through foreclosure would put pressures on the localities to permit development in other less desirable areas and would contribute to a greater suburban sprawl than would have occurred without the existence of the new community.

None of this is necessary if NCA is committed to saving the project. Financial models run on NCA computers indicate that the project can still succeed with an additional guarantee. The developer and NCA have received indications that the necessary equity can be obtained and, if NCA cooperates, the developer is optimistic that it can obtain the assurances of cash flow that the NCA staff feels to be necessary. Rather than the certain losses faced in a foreclosure, NCA will have the means of saving the Federal investment while at the same time fulfilling the mandates of the act. Relatively small commitments to the project in the form of grants or interest loans would further strengthen the project at much less cost to the Federal Government and with much more favorable results.

Recommendations

The committee might consider:

1. Recommending or directing that HUD cooperate fully with Gananda and other approved new communities to find methods of financing and otherwise restructuring the projects so that they might go forward and fulfill the purposes of the act. This might involve recognition of the fact that substantial appropriations would be necessary in the event of foreclosure and substitution of lesser amounts of aid to the new communities to permit them to become valid pilot projects.

2. Exploring ways so that long term public-private developments can be accomplished without the danger of constantly shifting policies and without the risk of withdrawal of the governmental commitments during relatively short term economic slow downs. This might mean specific direction as to the establishment of rules and regulations by NCA.

3. Recommending or directing HUD to implement procedures that would facilitate approvals and reviews where necessary without unnecessary delays.

4. Exploring methods of securing the interest of the United States in a manner which recognizes both the financial interest to be protected and the social interest to be gained by the Federal Government, including possible recognition of some degree of risk beyond that taken by conventional lenders.

5. Recommending or directing HUD to earmark sufficient discretionary funds for new communities and to implement the interest loan provisions of the act as a means of strengthening the new communities and providing flexibility during periods of slow downs in the Nation's housing industry. This might include an appropriations formula to insure equitable distribution of funds to all title VII new communities.

6. Recommending or directing HUD to investigate ways of encouraging increased private investment and financing by assurances and protections against the cyclical changes in the administration of Federal policy.

7. Considering the establishment of a special Federal new communities bank to administer the financial aspects of new communities and to raise funds for the program as a block rather than on a project-to-project basis. This might permit NCA to concentrate on the social goals and public-private partnership aspects of the program and alleviate much of the adversary relationship which seems to exist today.

APPENDIX "A"

Minor Clarifications Relating to the House Appropriations Committee Report, as It Relates to Gananda

(A) BACKGROUND

The 10,500 acre figure includes all land zoned within the new community district. Approximately 9,600 acres are controlled by the developer, 5,840 of which are with the HUD project and the balance of which are under option to the developer.

(C) CASH POSITION

The approximate $2.1 million funding from a New York State agency which would have been received by January 1975 was delayed because of the unfavorable publicity caused by the HUD action and uncertainty about the future of the project. It is unlikely that any funding can be obtained unless an additional HUD guarantee is granted.

Market projections for Riverton and Gananda have been based principally upon historical growth corridors in the Rochester metropolitan area and therefore the capture rate projections assume that the two projects are not competitive.

Road access to the site is nearly ideal at this stage with direct access from downtown Rochester over most of the distance by existing four to six lane divided arterial highways. All transportation studies have shown that the final two lane part of the access will be more than adequate for at least 5 years, and the New York State Department of Transportation has been in conversations with the developer about upgrading that last section in time to carry projected increases in traffic.

(D) COLLATERAL

The value of the security pool at December 31, 1974, was $27.4 million. The lower figure resulted from an error in calculation by the trustee.

(G) MANAGEMENT

The major industrial firm wanted 100 acres of land for major expansion and 1,500 employees within 5 years. The first section of 100,000 square feet for the first 200 employees would be on site during the first year. Because of the tax and other financial savings by selling the land 4 years in advance of any projected industrial sale, the developer computed the value of the industrial land sale at approximately $10,000 per acre which is substantially above its $5,000 to $6,000 per acre value in the security pool. More important to the developer is the fact that a major industrial development on site at Gananda in the first years would be a major factor in insuring an accelerated growth rate. Since HUD's major concern seems to be whether or not Gananda's market capture rate is realistic, it would seem that such a major acceleration as would be caused by early industrial development would have been fully supported. The industrial client has indicated that a future purchase might be possible since it is presently locating its operation in temporary space.

Impact of basic and supplementary grants

In addition to the three communities listed as receiving no categorical or supplementary grant assistance, Gananda has received no Federal grants of any type.

APPENDIX "B"

Larry Smith & Co. report

Following the freeze on Gananda's ability to withdraw funds from its escrow income, the Department of Housing and Urban Development commissioned a market study by Larry Smith & Co. This report has been relied upon by HUD as a justification for its actions although the report was done hastily and was not meant as a complete market study. The developer found the report inadequate and incorrect in many respects and furnished a rebuttal to NCA which has not responded. A brief synopsis of that rebuttal follows:

(1) *Persons interviewed.*—Only four persons were listed by Larry Smith & Co. as being interviewed. Two were homebuilders who had been generally unreceptive to the new community idea, were not familiar with the site or negotiations with other homebuilders and were generally unrepresentative of the types of builders Gananda had been negotiating with. The other two persons interviewed were associated with city of Rochester projects rather than metropolitan problems.

Nowhere on the list of persons interviewed was there an official of the regional planning board, Wayne County planning board or the Monroe County planning council. No one was interviewed from the Rochester Center for Government Research and neither builders negotiating with Gananda nor personnel of Gananda were interviewed to verify basic assumptions underlying the entire report.

(2) *Competitive land.*—The report stated that there were no distinguishing characteristics between the Gananda site and the some 50 square miles of un-

developed land in closer proximity to the Rochester urbanized area. A cursory look at the U.S. Department of Interior topographical maps for the pertinent area shows that most of the undeveloped land between Gananda and the urbanized area contains difficult terrain with deep slopes, swampland or surficial bedrock and is not suitable for development because a sewer system would be costly and the grading for streets and lots would be prohibitively expensive. Much of this land is recommended for 5-acre lots or agricultural districts.

(3) *Capture rate.*—The Larry Smith report predicts a maximum initial market share ranging from 3 to 4.5 percent. In an earlier report, also sponsored by HUD, Larry Smith & Co., stated that an 8.6 percent capture rate was "well within the realm of possibility for attainment," that a 12 percent capture rate was "attainable but more sensitive to Government decisions" and that 15 percent would be the maximum which Gananda could obtain.

In addition, Jackson Cross, appraisers chosen for Gananda by HUD, in a much more detailed report, supported Gananda's projections which started at a relatively low rate and escalated to an overall capture rate of 12.6 percent.

(4) *New York State Urban Development Corporation.*—UDC was cited as a major problem for Gananda's market capture. At this time, UDC has no projected new starts beyond those approved prior to the termination of the Federal programs in 1973 and UDC's present financial position is such that it is unlikely that it will undertake any new projects in the future.

(5) *Geographic location and access.*—The report states that access to Gananda is limited to two-lane secondary arterials. The fact is that three such arterials provide that access and that much of the route from downtown Rochester is over Interstate 490 to the Linden exit, then a four-lane divided highway to Penfield with four lanes to Route 250. The New York State Department of Tranportation plans to widen the final two lane portion when traffic warrants it and plans to extend the four lane Route 104 past the Xerox Plant in Webster then south through Gananda to the New York State Thruway. The report does not mention that Gananda is on the mass transit corridor to Rochester as already approved for development by the Regional Transportation Authority.

(6) *Industrial development.*—Gananda's growth potential has at all times been explained to HUD as being dependent upon the growth potential of the Rochester metropolitan area. Wayne County is rural and Gananda does not anticipate industrial development to come from that source. The Rochester market is interested in Gananda as evidenced by the Taylor Instrument negotiations. We also look to the national market because of our excellent rail access.

APPENDIX "C"

Brooks, Harvey & Co., Inc. Report

This report, prepared at the request of NCA after the "freeze" on escrow funds in October 1974, has been relied upon by HUD as evidence that the project is unfeasible. It has been difficult for the developers to analyze since only portions of the report have been made available. Those portions which have been given to the developer indicate, however, that the report's author feels strongly that the Government should not be supporting new communities but should concentrate on assisting conventional subdivision development activities.

The report's conclusion that $45.3 million in new capital will be needed in the next five (5) years is grossly exaggerated. Even computer runs by NCA indicate that the project is viable with $5 million in new equity and the additional HUD guarantee. The $45.3 million figure was arrived at in part by totally discounting any potential sales. The statement that there was "no new town market in Gananda" completely disregarded market studies that indicated otherwise. It also ignored existing contracts and contracts in negotiation when NCA took its action in October 1974. If only 50 percent of those contracts in negotiation had been finalized, the developer would have achieved in two years the maximum market potential assumed by Brooks, Harvey through 1980.

The conclusion that Gananda was bankrupt was arrived at by first ignoring an appraisal, obtained from Jackson-Cross at the request of NCA, which valued the land at $38.125 million, and by then substituting an off-hand liquidation valuation of $10 million for the land. The developer agrees that if NCA continues to withhold the developer's funds from the sale of its debentures in 1972, and if NCA refuses to proceed with the supplemental commitment as part of a two phased funding arrangement agreed to at the time of the initial commitment in 1972, the project will be bankrupt. Without funding to go forward, the marketability of the land would then obviously be seriously affected.

The report's conclusion that new investors cannot be attracted to the project has not been borne out by the developer's negotiations with potential equity investors. In fact, a major syndicator with a proven record in real estate equity financing has preliminarily indicated to the developer and NCA its willingness to undertake a syndication if NCA gives a conditional commitment for an additional guarantee.

Department of Housing and Urban Development

WITNESSES

HOMER C. FLOYD, EXECUTIVE DIRECTOR, PENNSYLVANIA HUMAN RELATIONS COMMISSION

MARGARET McKENNA, EXECUTIVE DIRECTOR, ASSOCIATION OF HUMAN RIGHTS COMMITTEES

Mr. Boland. Next we have Mr. Homer Floyd and Margaret McKenna.

Mr. Shipley. The committee is pleased to have you with us today.

Mr. Boland. Please proceed in any manner you would like.

Mr. Floyd. My name is Homer Floyd, executive director of the Pennsylvania Human Relations Commission of the Commonwealth of Pennsylvania. I also serve as the Atlantic region representative, board of directors of the International Association of Official Human Rights Agencies which is an aggregate of official human rights agencies of State, county and local governments in the United States and Canada.

During the last 12 years, I have directed two city human rights agencies and two State human rights agencies.

Margaret McKenna is the executive director of that organization. She has a brief statement to make in terms of the general context.

I will talk more specifically in terms of our agency's relationship with the Department of Housing and Urban Development specifically as it relates to civil rights compliance.

Mr. Shipley. Proceed, Mrs. McKenna.

Mrs. McKenna. Good afternoon.

My name is Margaret A. McKenna. I am a lawyer and executive director of the International Association of Official Human Rights Agencies. I have been asked by Vivian L. Caver, president of the association, and Arthur L. Green, Chairman of the Federal Liaison Committee, to speak on behalf of the IAOHRA.

The International Association of Official Human Rights Agencies or IAOHRA, is a nonprofit tax exempt corporation, drawing our membership from Government agencies at the State and local levels which administer Antidiscrimination laws and ordinances. There are approximately 550 such agencies, including statewide "human relations commission" in nearly every State. Human Relations Commissions enforce Civil Rights laws and ordinances concerning employment, housing, public accommodations, voting rights, law enforcement, and credit.

Our concern here is with enforcement of housing discrimination laws. Virtually all of our association's member agencies have laws or ordinances in this area, and like HUD receive, investigate and resolve individual cases as well as those that involve a pattern or practice of discrimination against a class of individuals.

I have been asked to appear here by many States. Michigan, Massachusetts, and Kentucky hoped to be here today but one was having budget hearings and the other two were not allowed to travel outside their States.

All of them wanted to show their concern that we believe State and local agencies are a viable alternative in processing housing discrimination complaints to the Federal Government.

Our role here today is to discuss the ability of State and local agencies to aid HUD in eliminating housing discrimination in this country. Our membership, which includes all agencies designated as "706" deferral agencies by the Equal Employment Opportunity Commission, have proven their ability to function in this type of partnership system with the Federal Government. EEOC defers employment complaints filed with its district offices to State or local agencies with comparable laws and standards. The State and local agency then has a specified time limit to process the complaint. Findings of these agencies are then given substantial weight by EEOC. In nearly all cases, the resolution of the local agencies is accepted by EEOC. The system has been extent for many years and has resulted in the resolution of tens of thousands of cases. EEOC projects that in 1975 alone, 7,110 deferral cases will be processed by "706" agencies.

Mr. SHIPLEY. How does that compare with the years past?

Mrs. MCKENNA. It is an enormously larger number. The reason for that is that though the ability to defer and the requirement to defer has been in existence since 1965, since the act went into effect, and cases have been deferred to State agencies on a regular basis since the late 1960s, EEOC has just itself begun to set the mechanism to process the complaints after they were processed by the State and local agency. That is to define what is substantiated and take the cases and put them into their own mechanisms and show they have been resolved.

It has been a mechanical problem and a growing problem for EEOC, an administrative problem rather than a State and local agency problem.

The 1968 Federal Fair Housing Act provides for a similar partnership with State and local agencies. The statute requires that all housing discrimination cases filed with HUD must be deferred to those State and local agencies which have fair housing laws similar to the Federal Law. Many of our member agencies have been accepting and processing HUD complaints for several years, though no formal agreement between HUD and the agencies has existed.

Last year the EEOC budget included $3.5 million for the processing of employment discrimination cases by "706" agencies. This year EEOC while remaining at an otherwise level funding position, has requested $8 million for this program.

While the 1968 Federal Fair Housing Act provides for a similar type of deferral, it also provides for similar funding the act says:

> SEC. 816. The Secretary may cooperate with state and local agencies charged with the administration of state and local fair housing laws and, with the consent of such agencies, utilize the services of such agencies and their employees and, notwithstanding any other provision of law, may reimburse such agencies and their employees for services rendered to assist him in carrying out this title.

The economy's situation has placed an even greater strain than usual on Civil Rights agencies throughout the country, and it appears that

the time has come for HUD to provide financial assistance to our agencies. These commissions are not looking to the Federal Government for financial aid as such but for fair reimbursement for the services provided by local agencies.

It appears to our agencies that the time has long since passed that HUD should provide financial assistance to the agencies.

These commissions are not looking to the Federal Government for financial aid as such. What we are asking for is fair reimbursement for services already being provided by State and local agencies.

Discussion is already underway in deferral of our member agencies as to whether they can continue processing these housing discrimination complaints in view of the economic restraints they are under this year.

The $2 million orginally requested by the Secretary will allow such a program of reimbursement. The program will allow HUD to meet its obligation under the 1968 act in creating a true partnership with State and local agencies. It will also provide additional funds to hard pressed agencies, allow them to continue and increase processing HUD complaints.

State and local agencies are a viable alternative to Federal resolution of housing discrimination complaints: (1) They are geographically and philosophically closer to problems in their own areas; (2) They are able to process cases more rapidly than HUD; (3) State/local agencies process cases more economically than Federal agencies, as has been shown time and time again with the EEOC program.

The requested funding would allow hiring of new investigators to deal specifically with housing discrimination and develop a greater expertise in this area.

The International Association of Official Human Rights Agencies believes, as provided for, in the 1968 Fair Housing Act, that a viable State-based remedy is preferred to Federal action. We believe that the states are in a position to participate fully in reducing housing discrimination with the appropriate financial and technical support from HUD.

We ask the committee to consider the minimum of a $2 million request asked for by the Secretary and possibly to increase that request.

Mr. BOLAND. Thank you very much, Miss McKenna.

Mr. Floyd?

Mr. FLOYD. Mr. Chairman, as I indicated earlier, I am Homer Floyd, the executive director of the Pennsylvania Human Relations Commission.

The Pennsylvania Human Relations Commission has developed an official working relationship with many Federal agencies including the Department of Housing and Urban Development (HUD). As part of that relationship our agency has a complaint deferral status with HUD as does 27 other State and local human rights agencies. While I do not presume to speak for all of them, I do share with them similar concerns. At a recent HUD seminar in Denver, Colo., representatives of these agencies voted overwhelmingly to seek appropriation with which to adequately process the deferred complaints. I will discuss this process and its needed appropriation with more specificity later in my remarks.

The interest of this subcommittee in the problems of housing discrimination as it relates to HUD and the opportunity to testify regarding these problems is greatly appreciated by our commission. It is hoped that such testimony will lead to a strengthening of HUD's law enforcement stance as well as increasing the partnership of HUD with local and State agencies not only in connection with deferrals under section 810(c) of the title VIII of the Civil Rights Act of 1968, but in the whole area of providing equal housing opportunity.

The specific language of section 810(c) states:

> Wherever a State or local fair housing law provides rights and remedies for alleged discriminatory housing practices which are substantially equivalent to the rights and remedies provided in this title, the Secretary shall notify the appropriate State or local agency of any complaint filed under this title which appears to constitute a violation of such State or local fair housing law, the Secretary shall take no further action with respect to such complaint if the appropriate State or local law enforcement official has, within 30 days from the date the alleged offense has been brought to his attention, commenced proceedings in the matter, or having done so, carries forward such proceedings with reasonable promptness. In no event shall the Secretary take further action unless he certifies that in his judgment, under the circumstances of the particular case, the protection of the rights of the parties or the interests of justice require such action.

The provision of the above section makes deferral of complaints filed with HUD mandatory if that State or local agency provides (as ours does) rights and remedies substantially equivalent to those furnished by HUD.

While the deferral is mandatory, the compensation authorized under section 816 for those services is considered discretionary because the presence of the term "may." That language reads:

> The Secretary may cooperate with State and local agencies charged with the administration of State and local fair housing laws and, with the consent of such agencies, utilize the services of such agencies and their employees and, notwithstanding any other provision of law, may reimburse such agencies and their employees for services rendered to assist him in carrying out this title. In furtherance of such cooperative efforts, the Secretary may enter into written agreements with such State or local agencies. All agreements and terminations thereof shall be published in the Federal Register.

Thus, we have a situation in which HUD defers the bulk of its complaints to 27 State and local agencies without providing any compensation. As a result, HUD is able to adopt a monitoring role rather than an enforcement stance in most areas of the United States.

Most of us at the State and local levels recognize that HUD through title VIII, has provided an additional avenue through which civil rights laws have taken on a new meaning for minorities and women who have consistenly over the years been excluded from equal opportunity in housing. We are hopeful, that our comments will be constructive and helpful by providing additional insight into the case handling problem as viewed by State and local agencies. We believe it is essential that the Federal Government together with our agencies form a partnership and establish a more systematic approach in HUD's law enforcement procedure, and deferral system. This is a necessity. While in the initial instance cases filed with HUD become part of its caseload, those same cases subsequently are deferred to our agencies and become part of our caseload.

ABOUT THE PENNSYLVANIA HUMAN RELATIONS COMMISSION

The Pennsylvania Human Relations Commission (PHRC) is the official State agency in our commonwealth with law enforcement responsibility in preventing and eliminating unlawful discrimination. Our commission administers the Pennsylvania Human Relations Act of October 27, 1955, Public Law 744 as amended and the Fair Educational Opportunity Act, which prohibits discrimination in employment, housing, public accommodations, and education because of race, color, religious creed, ancestry, age, sex, handicap, disability, national origin, use of guide dogs because of blindness of the user or willingness or refusal to participate in abortions or sterilizations.

For the fiscal year 1974–75, PHRC has a budget of $2,870,000 in State funds and approximately $250,000 in Federal funds (Equal Employment Opportunity Commission) with a staff complement of 204 employees. Approximately 65 percent of our agency's budget is devoted to our compliance program (processing complaints), with the remaining 35 percent devoted to our technical assistance program and agency administration.

The last several years have seen a steady increase in the number of complaints filed with PHRC. During fiscal year 1973–74 (period ending June 30, 1974), our caseload increased to a record high of 3,200 complaints, of which 1,773 were new complaints (28 percent increase) and 1,427 were carried over from the previous year. A record total of 1,336 complaints were closed (increase of 34 percent). In addition, over 1,300 informal complaints were handled. When averaged out over the year, our agency received 148 complaints per month and closed 111 per month. Therefore, we received 37 more new complaints per month than we were able to close. Fiscal year 1973–74 ended with PHRC having an active caseload of 1,865 complaints.

While a very substantial part of the Commission's housing program involves investigation and disposition of complaints, it is not the sole involvement of the Housing Division. The Housing Division has taken a land use approach to the problems of discrimination, beginning with the land as it is vacant, and continuing the process to include construction, marketing, financing, resale during secondary marketing, planning, and finally demolition.

In this approach, the Division has involvement with a number of Federal agencies, but roughly 75 percent of all of its Federal contacts are appropriately with HUD in the areas of compliance, deferral, and affirmative action.

CONCERNS OF STATE AND LOCAL AGENCIES

Several concerns related to the HUD deferral system are of considerable importance:

A. Dichotomy between section 810(c) and 816

As cited earlier, the law clearly provides for the deferral of complaints to our agencies while making funding discretionary. We have processed deferred complaints from HUD since 1970, providing this service without compensation for almost 5 years. While only a fraction

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of our total caseload at present involves the HUD deferral process, the potential accelerated number of complaints (the total of our own cases plus HUD deferrals as based on the past 3-year rate of increase) would sufficiently overburden agency staffs to cause considerable drain on our resources and is likely to seriously hamper program effectiveness. The impact on our efforts to insure equal housing opportunity will be severely threatened unless additional funds are secured.

HUD has added to our responsibility increased administrative requirements. Since mid-1973, the reporting periods have been increased from once every 6 months to once a month, and a recent request to once each week. Such extensive reporting procedures will demand a minimum of 5 person-hours per month in order to do these monitoring jobs, and we are doing the work with respect to the cases.

Ideally, the sharing of reports and information should be a mutually reciprocal process. In actual practice, however, our agencies have shared records and files but have received little information from HUD in return. Under a policy of confidentiality, HUD has persistently denied our agencies access to their records on federally funded projects, records on compliance reviews, and records on management surveys which are essential to the speedy resolution of pending complaints.

Some agencies are questioning the necessity of these reporting requirements, particularly where the equivalency status has been granted to them. The imposition of these newly made procedural requests diminishes the willingness of State and local agencies to continue processing deferrals, especially wihout the proper funding. HUD deferrals have accounted in the past for less than 25 percent of our housing complaints, but administration of these complaints has consumed increasingly disproportionate amounts of stafftime. The time is rapidly approaching when our Agency and others will no longer be able to accept HUD-deferred complaints. Foreseeing the decrease of our present capability to adequately handle future deferrals, we appeal to this subcommittee for positive action to grant human rights agencies the needed compensation authorized under section 816, to continue to work with HUD to prevent housing discrimination across the Nation.

B. PHRC's law enforcement posture

In 1970, the Pennsylvania Human Relations Act, as enforced by the Commission, was recognized as substantially equivalent to title VIII of the Civil Rights Act of 1968.

To further give you some idea of our enforcement posture, historically our agency has been broader and stronger in its jurisdiction than similar Federal statutes.

The Commission has enjoyed an impressive record of aggressive enforcement of the law as attested to by Dr. Gloria Toote, Assistant Secretary of the U.S. Department of Housing and Urban Development, who described our Commission as "* * * one of the most effective State agencies in the Nation in enforcing fair housing and equal employment laws."

Our Commission's objective is to continually and consistently provide effective leadership in protecting the human rights of citizens of the Commonwealth and these United States. However, the increased demands on agency resources necessitate the consideration and cooperation of HUD and this subcommittee to provide for the financial

support required to assist HUD in disposing of its complaints and for State and local agencies to succesfully do the job.

C. EEOC relationship

The Equal Employment Opportunity Commission (EEOC) has entered into agreements with many State and local agencies to process complaints as a means of reducing its backlog. This partnership agreement with EEOC contains an essential provision for funds with which State and local agencies can effectively assume the complaint deferral responsibility without an undue burden on regular programmatic agency functioning. EEOC's current budget to State and local agencies is $3.5 million with a proposed budget of $8 million pending before Congress. I might add, that many agencies have successfully assisted EEOC in processing its complaints.

We feel that a similar model relationship with HUD will bring about the kind of efficiency in case handling with which HUD is seriously concerned. PHRC's commitment to equal housing opportunity is fundamentally the very reason we appear here today. Our dual goal is to aid HUD and to enforce civil rights, but performing the tasks in our prospective locales with confidence, professionalism, and adequate resources.

D. HUD neutrality policy

HUD has maintained a position of neutrality regarding segregated housing authorities where affirmative leadership on its part is required, but active participation in investigations has been left to State and local agencies. In some such instances, PHRC had been placed inadvertenly in an adversary position with both the respondent housing authority and HUD through its tenant selection policy. An illustration of the tenuous nature of our position is the reluctance of HUD to share information needed to proceed with the disposition of a case. Such a situation ultimately demands additional administrative and legal expenditures which our agencies increasingly will be unable to defray.

Appropriate legislation is needed to strengthen the position of State and local agencies and to authorize HUD to assume a more aggressive leadership posture pursuant to the enforcement of Civil Rights Law of 1968.

CONCLUSIONS

Approval of congressional appropriation will help alleviate the strain State and local agencies currently experience. It will also serve to hold both HUD and human rights agencies accountable for their mandates through a budget.

Because agency deferral efforts are localized and procedures less complicated, State and local agencies can handle complaints more quickly and at less cost than the Federal agency. The longer the delay in recognizing the importance of State and local agencies, the greater the problem we all, Congress, HUD, State and local agencies, and the public face.

Since we share common goals with HUD, goals I am sure are endorsed by this subcommittee, we respectfully request that congressional action be taken to provide funds, a minimum of $3 million, to insure

a stronger, more efficient law enforcing effort by HUD, PHRC, and other similarly situated State and local human rights agencies.

RECOMMENDATIONS

The strategy of Congress and HUD in resolving the housing discrimination cases should include State and local agencies as an important component. If there are shortcomings in some of our compliance programs, a concerted effort should be made to provide the resources and technical assistance to improve our capabilities to process complaints in accordance with Federal standards and to secure remedies guaranteed under title VIII. HUD has given some real recognition to the importance of State and local agencies in the struggle to prevent and eliminate discrimination in housing by demonstrating their willingness during the last 5 years to defer complaints. However, a large effort to begin coordinating our programs to eleminate the duplication of work and to establish a more systematic disposition of cases is needed. This is clearly illustrated in light of several requests by our agency to HUD for review of several policies which tend to complicate case handling and demonstratively increase our administrative costs. Therefore, I respectfully recommend the following congressional actions which would help to allay our concerns:

(A) Mandatory funding: Congressional appropriations to HUD should mandate reimbursement to State and local agencies for their share of HUD deferred cases, to improve the administrative functions as they relate to deferrals, and to provide resources to continue pattern and practice investigations.

However, funding, if it is to be effective, must be provided for all of the following:

1. The administrative cost of the deferral processing;
2. The actual cost of complaint processing;
3. The cost of supportive services for the compliance procedure;
4. The cost of training staff to insure uniformity in case processing and the deferral system;
5. The cost of a joint teletype system for instant transmittal of complaint information between our agencies, and a computerized data bank for recording.

(B) Make legislative changes for HUD to adopt a more aggressive law enforcement stance including:

1. Leadership in case handling procedure.
2. Joint prosecutions with State/local agencies.
3. Increased title VI enforcement.
4. Increased prosecution of:
   - (*a*) Segregated housing project.
   - (*b*) Violation of subsidized housing contracts.
   - (*c*) FHA broker violations.
   - (*d*) Site selection violations.
   - (*e*) A–95 violations.

(C) Remove all legal restrictions or bars to HUD granting full access to information necessary to official State and local official human rights agencies.

(D) Mandate HUD to provide technical assistance to State and local agencies in the form of staff training, legal assistance, legislative drafting, research, and so forth.

Allow me to point out to this subcommittee the similarity of our concerns and recommendations to those expressed by the U.S. Commission on Civil Rights in its report of July 1974, on "Equal Opportunity in Suburbia" and recommend them to this subcommittee for consideration.

I would like to conclude by making a direct appeal on behalf of both the Pennsylvania Human Relations Commission and all other State and local commissions for the inclusion of at least $3 million in the HUD appropriation for the funding of State and local agencies.

Thank you, Mr. Chairman, for this opportunity to testify. I would welcome any questions you or members of this subcommittee might have.

Mr. BOLAND. Thank you very much for a very fine statement. Any questions?

Mr. SHIPLEY. I would just like to commend both of you for your very fine statements. I agree that you could do it much less expensively than the Federal Government.

Mrs. MCKENNA. Glendora Putnam wanted to come from Massachusetts, but was unable to because of budgetary restrictions.

Mr. BOLAND. Thank you. Give her our regards.

Mr. TRAXLER. It is interesting to note that other States are suffering the same as Michigan.

Mr. BOLAND. That is true.

ENVIRONMENT PROTECTION AGENCY

WITNESSES

ALFRED E. PELOQUIN, EXECUTIVE SECRETARY, NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION
WESLEY E. GILBERTSON, DEPUTY SECRETARY, ENVIRONMENTAL RESOURCES, COMMONWEALTH OF PENNSYLVANIA

Mr. BOLAND. We will now turn to Mr. Alfred E. Peloquin, executive secretary, New England Interstate Water Pollution Control Commission, and Wesley E. Gilbertson, deputy secretary, environmental resources, Commonwealth of Pennsylvania.

Mr. PELOQUIN. Mr. Chairman and gentlemen of the subcommittee, I am Alfred E. Peloquin, executive secretary of the New England Interstate Water Pollution Control Commission, comprised of the six New England States and New York State. I am also immediate past president of the Association of State and Interstate Water Pollution Control Administrators, a national organization. I am presenting this statement on behalf of both the commission and the association. I will confine my remarks to the water pollution control aspects of the EPA's budget. My colleague, Mr. Gilbertson, will address the other areas of EPA responsibility.

On January 15 through 17, 1975, the Association of State and Interstate Water Pollution Control Administrators held a special meeting in Kansas City, Mo., to discuss possible amendments to Public Law 92–500 and to submit to the Congress its recommendations on amending the act. Included among the recommendations were the following pertaining to fiscal matters:

A. Provide authorization for appropriations of $5 billion per year for fiscal year 1976 through fiscal year 1980 for construction grants.

B. Allocate construction grants funds on the basis of 50-percent population and 50-percent needs.

C. Provide year-ahead budgeting of program funds so that States and interstates can logically provide program continuity and eliminate waste.

D. Authorize appropriations of at least $100 million per year for program grants.

E. Provide funding extensions for Section 104(u), Research and Training, and for Section 112(c), Institutional Training.

The rationale behind the association's recommendations is appended hereto.

If I may, I would like to comment on certain portions of the EPA budget. Probably the most important items in the budget pertaining to water pollution control are those involving sections 106 and 207. Section 106 is actually the heart of the water pollution control program. It provides grants to State and interstate agencies for administration of the program. Congress recognized the importance of this section in the initial act and authorized appropriations of $60 million and $70 million, respectively, for fiscal years 1973 and 1974. However, there was never more than $40 million allocated nor made available in any given year.

That is in error. Actually Congress recognized the plight of the State. It appropriated $50 million, $10 million more than EPA requested. However, this money was impounded.

When Congress asked for an update on the needs survey and asked for that to be submitted by September of 1974, EPA finally got around to the $1 million and a half of that impounded money. We got a little help there to get the need survey done.

Following the passage of the actions against impoundments the remaining $8½ million of that $10 million was requested for fiscal 1975. So actually in fiscal 1975 the States have received about $48½ million. But considering this in light of what has to be done in light of 92–500, I think the assistance is very short of the needs.

In Rhode Island the State employees have been asked to take a pay cut. In Massachusetts there has been an across-the-board reduction.

Never before have we needed the assistance we need now if we are to follow through and make 92–500 work.

EPA's budget request for fiscal year 1976 is on the order of $34.6 million. It is my understanding that EPA plans to add to this $5.6 million appropriated in its fiscal year 1975 budget, but never released for grants. This would provide $40 million again for fiscal year 1976. Inflation alone is going to reduce the amount available to the point where States will be doing less.

The fiscal situation in the New England and New York States at least is not good. Most agencies are facing a cut-back of some 10 percent across the board, including reductions in pay, to forestall layoffs. Some States are even faced with the prospect of not being able to expend States' funds to the fiscal year 1971 level stipulated in the act, thereby facing the threat of total loss of Federal aid. The requirements under Public Law 92–500 have not decreased. Consequently, now more than ever, do we need program assistance. Surveys done

last year by State water pollution control administrators showed a need for $100 million a year in program grants if the States are expected to comply with the provisions of the act. The surveys also showed that Federal allocations were out of phase with State budgeting procedures. States did not know the amount of funds they would receive for a given year until well after their respective budgets had been submitted to their legislatures. This led to a recommendation for year-ahead appropriation. On behalf of the State and interstate agencies, we request that the committee recommend an increase in 106 funding to $100 million for fiscal year 1976 with a similar amount appropriated for fiscal year 1977.

I would like to call attention to the fact that the $9 billion set forth in EPA's budget for construction grants is not a new appropriation, but the $9 billion impounded by the previous administration and released by court order. It should be recognized that this is not a fiscal year 1976 appropriation but a 1973, 1974, and 1975 appropriation. It is hoped that the committee will recognize the need for continued assistance if the goals and objectives of the act are to be achieved. The 1974 needs survey clearly delineated the extent of the needs as related to these goals and objectives. Consideration should be given now to fiscal year 1977 authorizations and appropriations.

In this light, I would also recommend that EPA's operating budget and staffing in the construction grants area be increased to enable the expeditious obligation of the recently released impounded funds. I would further like to request that the bulk of any increase in staffing be authorized for the regions as opposed to headquarters, and that EPA also detail to State agencies, under provisions of section 501 of the act, personnel to assist the States in administering the title II provisions of the act. Some States feel that EPA has some adequate staffing, although there is a concensus that more engineers and technically oriented people are needed to move the program.

It is recommended that adequate funds be made available to continue support of training activities at the undergraduate and graduate levels as well as at the treatment plant operator level. I am sure that other witnesses will adequately address the issue of college level training. Based on our own experience in the Northeast, I would like to urge a substantial increase in support of training of operators for wastewater treatment works. I was advised recently that a need for 600 operators is anticipated for New England over the next 2 to 3 years. The NEIWPCC operates one of two schools in the country devoted entirely to treatment plant operator training. We reserve 20 spaces per year for manpower oriented programs such as the old MDTA program and the CETA program. Without adequate Federal support we are unable to fill all of these spaces.

Again, in debating the provisions of the act prior to its enactment, Congress foresaw the importance of training efforts and authorized $25 million per year for 2 fiscal years for these activities. The fact that EPA is requesting only $331,000 to fund provisions of section 109 through 112 for fiscal year 1976 demonstrates a complete lack of recognition of the importance of training in achieving the goals and objectives of the act.

Personally, I try to use students in a work study program in the Boston area and I cannot get sanitary engineering students or civil engineering students. There are not enough to go around.

These people are not being trained to go into the job market. I think without that type of support that we are going to fall far short of meeting our needs.

Mr. BOLAND. Why shouldn't the State do this?

Mr. PELOQUIN. The State does it but I do not believe there is enough capability within the State to meet the full level.

Mr. BOLAND. I think there would be enough capabilty to establish a training program. I don't know what kind of a training program you have. You indicated that you reserve 20 spaces a year for manpower programs.

Mr. PELOQUIN. This is on the manpower programs. It is not the college undergraduate programs.

Mr. BOLAND. Why shouldn't the State be responsible for that kind of training program?

Mr. PELOQUIN. It is a matter of begging.

Mr. BOLAND. It is for the Federal Government, too. Do you know what the deficit is going to be this year? You know what the problems are in Massachusetts and they are just as severe, if not more severe, on the Federal level. I suppose if you take an $18 billion program for construction of waste-treatment facilities and you do not have the proper personnel, a lot of that money is going to be flushed down the drain.

Mr. PELOQUIN. That is right.

The program the Commission operates in Maine is operated now on the basis of plants available and ready to go online and we can guarantee a man a job if he finishes his schooling, if he is willing.

There have been cases where the individual was not ready to go to work. We start off under the manpower plan and try to train them.

Mr. BOLAND. How long does it take?

Mr. PELOQUIN. Three to 6 months depending on the intensity of the program and the level that you are training him for.

The program we offer is for 1 academic year. It is to provide a highly trained specialist in the field and upgrade the image of the treatment plant operator and upgrade his salary level.

The treatment plant operator is basically one of the lowest paid groups.

Mr. TALCOTT. Is it a low skill? Isn't that why he is low paid?

Mr. PELOQUIN. They were considered low skilled, but with the complexities of the treatment plants today we need highly trained people.

Mr. TALCOTT. If there is such a need, you would think the student would be so eager that they would get the training themselves when there are all these good jobs. That is the last type of job we would have to provide funds for.

Mr. PELOQUIN. We still have an image problem.

Mr. TALCOTT. It is getting pretty chic to be in the waste disposal business.

Mr. PELOQUIN. Some people don't look at it that way.

We have not had any problem filling our spaces. If we don't have them in from the manpower training program we have self-supporting students but we cannot meet the demands for the work in the area unless we expand our program.

We need the individual enrollment in order to do it.

A brief comment on research and development. State and interstate administrators feel that more emphasis should be placed on demon-

stration projects and field application of promising bench and pilot studies. Only through field application can we prove out new technology which could be more effective and efficient in the control and abatement of water pollution. What I call the "real world" problems must be recognized and addressed. Some of our Western States have severe problems with nonpoint source pollution. In the East, where we have many small suburban and rural communities, we are finding out that we have a severe problem with the handling, mistreatment, and disposal of septic tank pumpout wastes. The NEIWPCC is presently doing a survey in Massachusetts to assess the magnitude of the problem. When we consider that about one-third of the population, nationally, and 40 to 60 percent of the population in the East is on septic tanks, the enormity of the problem begins to crystallize. I would recommend at least a million dollar increase for research and development efforts with substantially increased attention directed to septic tank wastes and nonpoint source problems.

We know you are aware of the Cleveland-Wright bill but there is so much to be done in the area of treatment works that if the administration and EPA find it is easy to skim a little money off the top of an item that is relatively, well, no too difficult to get without a fight, they are probably going to keep trying to skim it.

We started talking last November about a half percent. In R. & D. before we got through they were talking about 2 percent of the R. & D. off the top.

The EPA budget figures made available to me did not include an amount for section 314—clean lakes. Funds were never made available under this section even though $300 million had been authorized over a 3-year period. Some of our States desperately need assistance in this area. Maine, for example, has 2,500 lakes, some of which are in endangered status and must be reclaimed. Time is of the essence in an effort of this type. Consequently, we urge the committee to include at least $100 million in the EPA budget for section 314.

There is also concern for section 208 funding. The determination that every inch of a State must be subject to 208 planning and the holding of States responsible for doing the 208 planning in nondesignated areas has led to an assessment of funding needs by a nonpoint source pollution task force. This group has estimated a per State cost of $200,000, or $10 million nationally, for nondesignated area 208 planning for fiscal year 1976, and a subsequent total cost of $125 million for fiscal years 1977 through 1981. If the States are to be held accountable for 208 planning in nondesignated areas, it is imperative that adequate funding be provided for this work.

The State administrators also request that consideration also be given to the authorization and appropriation of funds under section 206 of the act, reimbursement and advanced construction. State reimbursement to date has accounted for 69 percent of the prefinanced amounts. It is requested that EPA's budget be increased to provide for reimbursement of the 31 percent remaining.

In conclusion, Mr. Chairman, my final concern—cash flow control. Most water pollution control administrators at the State and interstate level feel that rules and regulations are being used as a cash flow control mechanism. We have an unemployment rate of some 10 percent nationally, and as high as 14 percent in some locales. The ability to award construction contracts would provide some relief from this

situation. Realistic cash flow ceilings must be established to allow the program to move. A $500 million ceiling for a multibillion dollar program is totally inadequate and will certainly forestall an improvement in the existing construction obligation rate.

We hope that you, Mr. Chairman, and your committee will augment EPA's budget along the lines of our recommendations so that we can meet the obligations imposed by Congress under Public Law 92–500. Thank you.

ASSOCIATION OF STATE AND INTERSTATE WATER POLLUTION CONTROL ADMINISTRATORS

ABSTRACT OF ASIWPCA MEETING RECOMMENDATIONS

Kansas City, Mo., January 15–17, 1975

1. Sec. 207. Provide authorization for appropriations of $5 billion per year for fiscal year 1976 through fiscal year 1980 for construction grants. This would be in addition to the impounded $9 billion giving a total of $34 billion authorized. This approximates the "needs" survey cost of categories I, II, and IVb and can reasonably be accommodated in the engineering, manufacturing, and construction business.

The knowledge of funds available for future years could do much to expedite planning and scheduling of projects, and if provisions are made for reasonable reimbursement for step I, II, and III grants, considerable lag time can be eliminated in the construction of needed facilities.

The "public works" aspects of this proposal are also significant from the standpoint of the Nation's economic situation.

(Note: unanimous approval at Kansas City meeting.)

2. Sec. 205(a). Allocation of Construction Grants. Fifty percent of the allocation shall be based upon the ratio the population of each State bears to the total population of the States and territories (latest U.S. Census).

Fifty percent of the allocation shall be based upon the ratio the needs of each State bear to the total needs of all the States and territories as reflected in the 1974 needs survey. For the purpose of these calculations only the following categories of the needs study shall be utilized: category I, secondary treatment; category II, more stringent treatment required by water quality; and category IVb, new interceptor sewers and transmission pumping stations necessary for the bulk transport of wastewater.

Funds allocated to the States under this section of the act can be utilized for sewerage construction grants at the States' discretion for all areas eligible under the act.

This formula is to be used each year until January 1, 1980, by which time the States in collaboration with the Environmental Protection Agency will reassess and develop a new formula if it is needed.

DISCUSSION

The committee discussed a number of alternative proposals for the distribution of construction grant funds or publicly owned wastewater treatment facilities. Among the proposals considered were the following:

a. Population only.

b. Needs study only (1974).

c. Utilize 1973 formula.

d. Some combination of population and the latest needs study.

It was the consensus of the committee that a formula utilizing the latest population figures would be least subject to manipulation, was used prior to 1972 with success, would be simple to calculate, and would be a fair means of distributing these funds with the least amount of effort. However, at the general meeting of the States present this proposal was defeated 13 to 12.

As an alternate the committee proposed the preceding formula. In its review of the current needs study it was the committee's opinion that categories I, II, and IVb were most valid because of the availability of data in these areas. The other areas contained in the survey include data for which, in some instances, validity was not as well established. Attached are tables showing the distribution of grant funds on the basis of (1) population, (2) 1974 needs (categories I, II and IVb), and (3) 50 percent population and 50 percent need. With a few

exceptions it should be noted that there is close correlation between them. It is felt that where the needs study is used alone or in combination with the population some adjustments should be made in those cases where the needs do not follow the national trend.

N. C. Vasuki of Maryland has done considerable analysis of allocation of construction grants. It is interesting to note that when compared on the basis of allocation by the three different methods: Population, needs survey, 50 percent population—50 percent needs, there is relatively little difference in the amounts allocated to the Big 10 States. The percentage of national allocation to these 10 States is 53.93 percent, 52.52 percent, and 53.23 percent, respectively. This material should give adequate background to arrive at an allocation formula all can live with and perhaps eliminate repetitive needs studies. The combination of population and needs does seem to temper dollar amounts in one or two instances.

DISTRIBUTION OF FEDERAL GRANTS FOR THE CONSTRUCTION OF TREATMENT PLANTS AND INTERCEPTORS COMPARATIVE TABULATION FOR FISCAL YEAR 1976 ON THE BASIS OF POPULATION AND NEEDS

			Population		1974 needs for combined categories I, II, and IVB	
Rank in order of population	Rank in order of needs	State	Percentage of national (1972) population	Allocation on the basis of population [1]	Percentage of total national needs	Allocation on the basis of needs
1	2	California (CA)	9.69	484.445	9.23	461.715
2	1	New York (NY)	8.69	434.694	9.97	498.280
3	10	Pennsylvania (PA)	5.65	282.269	3.50	175.160
4	4	Texas (TX)	5.51	275.713	4.97	248.475
5	6	Illinois (IL)	5.33	266.293	4.78	239.125
6	7	Ohio (OH)	5.10	255.216	4.69	234.305
7	11	Michigan (MI)	4.30	214.956	3.42	171.005
8	3	New Jersey (NJ)	3.49	174.365	4.98	249.045
9	8	Florida (FL)	3.44	171.809	4.07	203.505
10	12	Massachusetts (MA)	53.93 2.74	136.969	2.91 52.52	145.594
11	19	Indiana (IN)	2.50	125.230	1.70	84.840
12	16	North Carolina (NC)	2.47	123.407	1.98	98.915
13	13	Virginia (VA)	2.26	112.757	2.52	126.030
14	20	Missouri (MO)	2.25	112.496	1.68	83.990
15	17	Georgia (GA)	2.23	111.715	1.93	96.365
16	15	Wisconsin (WI)	2.14	106.981	1.99	99.390
17	5	Maryland (MD)	1.92	95.999	4.82	241.200
18	24	Tennessee (TN)	1.91	95.407	1.35	67.360
19	25	Minnesota (MN)	1.84	92.213	1.34	66.985
20	26	Louisiana (LA)	1.76	88.046	1.20	60.180
21	33	Alabama (AL)	1.66	83.076	.80	39.960
22	18	Washington (WA)	1.63	81.490	1.84	92.020
23	22	Kentucky (KY)	1.56	78.083	1.43	71.330
24	29	Connecticut (CT)	1.46	72.946	1.00	50.165
25	28	Iowa (IA)	1.36	68.236	1.14	57.155
26	23	South Carolina (SC)	1.26	63.076	1.40	70.195
27	14	Oklahoma (OK)	1.25	62.343	2.40	120.175
28	30	Colorado (CO)	1.12	55.787	.97	48.275
29	35	Mississippi (MS)	1.07	53.561	.57	28.720
30	27	Kansas (KS)	1.07	53.443	1.19	59.615
31	34	Oregon (OR)	1.03	51.664	.58	29.095
32	21	Arkansas (AR)	.94	46.816	1.56	78.225
33	37	Arizona (AZ)	.92	46.035	.53	26.355
34	9	West Virginia (WV)	.84	42.154	4.06	203.220
35	38	Nebraska (NB)	.72	36.095	.51	25.695
36	41	Utah (UT)	.53	26.650	.42	20.785
37	46	New Mexico (NM)	.50	25.159	.19	9.255
38	36	Maine (ME)	.49	24.355	.54	26.830
39	39	Rhode Island (RI)	.46	22.911	.44	21.915
40	32	Hawaii (HI)	.38	19.147	.83	41.570
41	31	New Hampshire (NH)	.36	18.248	.83	41.665
42	40	Idaho (ID)	.36	17.893	.42	20.970
43	51	District of Columbia (DC)	.35	17.704	.13	6.610
44	47	Montana (MT)	.34	17.017	.18	8.785
45	50	South Dakota (SD)	.32	16.071	.14	6.990
46	48	North Dakota (ND)	.30	14.958	.16	8.030
47	42	Delaware (DE)	.27	13.373	.38	18.895
48	43	Nevada (NV)	.25	12.473	.36	17.855
49	45	Vermont (VT)	.22	10.934	.26	12.750
50	49	Wyoming (WY)	.16	8.166	.15	7.270
51	44	Alaska (AK)	.15	7.692	.35	17.570
52		Puerto Rico and Territories [2]	1.43	71.620	1.21	60.550

[1] Allocation in millions of dollars for a national total of $5,000,000,000 for fiscal year 1976.
[2] No population data was available for Puerto Rico and Territories for 1972 and hence census figures for 1970 were used.

Note: Further accuracy in percentages can be obtained by dividing the respective allocation value by 50. Computational Error ±0.003 percent.

DISTRIBUTION OF FEDERAL GRANTS FOR THE CONSTRUCTION OF TREATMENT PLANTS AND INTERCEPTORS

COMPARATIVE TABULATION FOR FISCAL YEAR 1976 ON THE BASIS OF POPULATION AND NEEDS

Number and State	50 percent population and 50 percent need		40 percent population and 60 percent need	
	Percentage of national total	Allocation [1]	Percentage of national total	Allocation [1]
1. California (CA)	9.46	473.080	9.42	470.807
2. New York (NY)	9.33	466.487	9.46	472.846
3. Pennsylvania (PA)	4.57	228.715	4.36	218.004
4. Texas (TX)	5.24	262.094	5.19	259.370
5. Illinois (IL)	5.05	252.709	5.00	249.992
6. Ohio (OH)	4.90	244.761	4.85	242.669
7. Michigan (MI)	3.86	192.981	3.77	188.585
8. New Jersey (NJ)	4.23	211.705	4.38	219.173
9. Florida (FL)	3.75	187.657	3.82	190.827
10. Massachusetts (MA)	2.82 52.23	141.232	53.09 2.84	142.085
11. Indiana (IN)	2.10	105.035	2.02	100.996
12. North Carolina (NC)	2.22	111.161	2.17	108.712
13. Virginia (VA)	2.39	119.394	2.41	120.721
14. Missouri (MO)	1.97	98.243	1.91	95.392
15. Georgia (GA)	2.08	104.040	2.05	102.505
16. Wisconsin (WI)	2.06	103.186	2.05	102.426
17. Maryland (MD)	3.37	168.600	3.66	183.120
18. Tennessee (TN)	1.63	81.384	1.57	78.579
19. Minnesota (MN)	1.59	79.599	1.54	77.076
20. Louisiana (LA)	1.48	74.113	1.43	71.326
21. Alabama (AL)	1.23	61.518	1.14	57.206
22. Washington (WA)	1.74	86.755	1.76	87.808
23. Kentucky (KY)	1.49	74.707	1.48	74.031
24. Connecticut (CT)	1.23	61.556	1.19	59.277
25. Iowa (IA)	1.25	62.696	1.23	61.587
26. South Carolina (SC)	1.33	66.636	1.35	67.347
27. Oklahoma (OK)	1.83	91.259	1.94	97.042
28. Colorado (CO)	1.04	52.031	1.03	51.280
29. Mississippi (MS)	.82	41.141	.77	38.656
30. Kansas (KS)	1.13	56.529	1.14	57.146
31. Oregon (OR)	.81	40.370	.76	38.115
32. Arkansas (AR)	1.25	62.521	1.31	65.661
33. Arizona (AZ)	.72	36.195	.68	34.227
34. West Virginia (WV)	2.45	122.687	2.78	138.794
35. Nebraska (NB)	.62	30.895	.60	29.855
36. Utah (UT)	.47	23.718	.46	23.131
37. New Mexico (NM)	.34	17.207	.31	15.617
38. Maine (ME)	.51	25.593	.52	25.840
39. Rhode Island (RI)	.45	22.413	.45	22.313
40. Hawaii (HI)	.61	30.359	.65	32.601
41. New Hampshire (NH)	.60	29.957	.65	32.298
42. Idaho (ID)	.39	19.432	.39	19.739
43. District of Columbia (DC)	.24	12.157	.22	11.076
44. Montana (MT)	.26	12.901	.24	12.078
45. South Dakota (SD)	.23	11.531	.21	10.622
46. North Dakota (ND)	.23	11.494	.22	10.801
47. Delaware (DE)	.32	16.134	.33	16.686
48. Nevada (NV)	.30	15.164	.31	15.702
49. Vermont (VT)	.24	11.842	.24	12.024
50. Wyoming (WY)	.15	7.718	.15	7.628
51. Alaska (AK)	.25	12.591	.27	13.619
52. Puerto Rico and Territories [2]	1.32	66.085	1.30	64.987
Total		4,999.968		4,999.996

[1] Allocation in millions of dollars for a national total of $5,000,000,000 for fiscal year 1976.
[2] No population data was avilable for Puerto Rico and Territories for 1972 and hence census figures for 1970 were used.

Note: Further accuracy in percentages can be obtained by dividing the respective allocation value by 50. Computational error ± 0.003 percent.

3. Sec. 106(a)(3). State program funds.

Recommend that Congress provide for year-ahead budgeting of program funds so that States and interstates can logically provide program continuity and eliminate waste. The following is suggested:

"Initially, funds shall be appropriated for allocation to State and interstate agencies for 2 fiscal years and for each fiscal year thereafter. After the initial year, the Administrator is authorized to allocate such funds for a specific fiscal year a minimum of 12 months prior to the start of that fiscal year."

It is recommended that the allocation for State program grants be at least $100 million per year. Increased responsibilities of the States and the ever-increasing and time-consuming administrative paperwork warrant this consideration.

4. Sec. 106(d). Maintenance of non-Federal State program funds.

The following language is recommended:

"If any State or interstate agency expends less non-Federal funds in any given year than that expended in the fiscal year ending June 30, 1971, the grant to such State or interstate agency shall be proportional to the Federal-non-Federal fund ratio of the reduced expenditure."

OTHER FUNDING CONSIDERATIONS

5. Sec. 106(a)(2). State and interstate allocations.
6. Sec. 104(u). Research and training.
7. Sec. 112(c). Institutional training.

It is recommended that these sections be given funding extensions.

Mr. BOLAND. Thank you very much, Mr. Peloquin.

Mr. Gilbertson.

Mr. GILBERTSON. Mr. Chairman and members of the committee: I appreciate the opportunity of appearing before you on behalf of the Commonwealth of Pennsylvania, the American Public Health Association, the Conference of State Sanitary Engineers, the American Academy of Environmental Engineers (as chairman of the Government affairs committee), and as Chairman of the Ohio River Valley Water Sanitation Commission (ORSANCO) on behalf of the commission. In addition, I am a member of the board of directors of the American Public Works Association and chairman of its committee on intergovernmental relations.

Mr. Peloquin has talked intensively about the Water Pollution Act. I will not attempt to repeat that. I want to comment on the program grants for State and interstate and local agencies in air, water, and water pollution control and in solid-waste management and in the new Safe Drinking Water Act.

In all of these areas the State program grant appropriations are substantially below the levels authorized and in fact have not kept pace with the increases that State and local governments have put into them.

The same is true with regard to the interstate compacts. Under the authorization of Orsanco I am presenting to you a statement by the Commission for your record.

Mr. BOLAND. It will be included in the record.

[The statement follows:]

STATEMENT SUBMITTED TO THE SUBCOMMITTEE ON INDEPENDENT AGENCIES OF THE HOUSE APPROPRIATIONS COMMITTEE MAY 14, 1975

The President's fiscal 1976 budget includes funds to support State and interstate water pollution control programs at the fiscal 1974 program grant level—20 percent less than the fiscal 1975 level. It is the purpose of this statement to advise this committee of the negative impact this reduction in budget will have on this interstate agency's ability to act upon and carry out certain program requirements of the 1972 amendments to the Federal Water Pollution Control Act, Public Law 92-500.

More than two decades ago, the Ohio River Valley Water Sanitation Commission was inaugurated by eight States, Illinois, Indiana, Kentucky, New York, Ohio, Pennsylvania, Virginia and West Virginia. The Commission, served by a 21-member full-time staff based in Cincinnati, Ohio, consists of three Commissioners appointed by the respective Governors of the eight States signatory to the

Orsanco compact, as well as three Commissioners appointed by the President—representatives of the Federal Government. The Commission focuses its attention principally on the 981 mile Ohio River and the major tributaries which flow through its member States. By virtue of the compact, these States coordinate their resources for a regional assault on mutual problems of stream pollution.

The Commission is financed by appropriations of the State Legislatures on the basis of population and area served in the Ohio River Basin and by receipt of a designated percentage of State program grant moneys provided through the Federal Water Pollution Control Act. Historically, the Commission has maintained a long-standing program of information gathering and evaluation of river quality conditions. While the compact provides police powers, cooperation in achieving goals has been the hallmark of the Commission's program. Its past success in coordinating a clean stream program for the Ohio River and the major tributaries wherein the Federal, State, and local governments, industries and conservation and other citizen groups worked toward the goal of a cleaner Ohio has received national and international recognition from engineering and conservation organizations.

Public Law 92–500 reemphasizes the primary responsibility of State governments for water pollution control and clearly sets the Federal Government and more particularly the United States EPA in a supervisory role. Since the passage of the 1972 amendments, the Commission has initiated and cooperated in studies to reevaluate the role of the compact. The Commission has adopted a program reflecting these reevaluations and designed to assist the several States and the United States EPA and other Federal agencies in meeting their respective responsibilities under Public Law 92–500. For example, the Commission has prepared for the States the assessment of 1974 and future water quality conditions on the Ohio River main stem as required of the States under section 305(b) of the act. Similarly, the collection and evaluation of water quality data essential to implement the continuing State planning process and basin and regional planning programs under sections 303(e), 209 and 208 of the act are underway.

A substantially increased stream monitoring and surveillance effort was deemed necessary to provide data to meet these responsibilities. A year ago action was initiated to obtain additional funds from the signatory States so that the monitoring strategy set forth by a special study group of the States and United States EPA could be accomplished.

The fiscal 1975 level of funds allocated to Orsanco by the States is $220,000. The States voted to request their respective legislatures to increase this sum by 70 percent to $375,000 per annum for fiscal year 1976. Meanwhile, it was known that the level of section 106 funds under Public Law 92–500 allotted to the Commission by United States EPA would have to be maintained at least at the existing level if the previously cited monitoring strategy is to be fully implemented. This means that the overall appropriation for section 106 program grants must be maintained at least at the fiscal 1975 $50 million level. The President's budget which is before this committee has pegged this level at 20 percent less or $40 million; thus, the sum of $67,100 would not be available to Orsanco and the program grant level will revert to the 1974 fiscal year level. In terms of the program, this means that the necessary support positions will remain unfilled and 6 of 26 monitoring stations which telemeter disolved oxygen, pH, and certain other basic pollution indicator data to the Orsanco central receiving and evaluation station will not be activated in fiscal year 1976 despite the fact that construction and installation of the six stations was supported in the 1975 budget. If the appropriation level in the President's budget is allowed to stand, it will mean that although the respective States have taken action, the Federal Government cannot or will not continue to support this effort at a level necessary to meeting the challenging requirements and goals set by the act.

Congress, in recognizing the enormity of the task facing the State agencies, provided for an authorization level of $75 million in fiscal 1974 to support the State program grant section of the act. The proposed cutback of 20 percent from an appropriation level which is only two-thirds of that estimated as reasonably petitionable by the Congress little more than 2 years after the passage of this unprecedented legislation is difficult to understand and is regarded as inconsistent with the intent of the act. There has been no reduction in responsibilities to State agencies set forth under the amended act. To the contrary, EPA is properly intensifying its efforts to encourage further State responsibility under the terms of the act.

It is respectfully submitted that while the amount of money which will or will not be forthcoming to Orsanco is relatively small, the principal is major and

that it is in essence a real indication of the intent of the Federal Government to support the State agencies in the spirit prescribed in the act. It is, therefore, respectfully requested that the fiscal 1976 program grant appropriation level be pegged accordingly.

Mr. GILBERTSON. The main point is that it shows the States have increased their support of the Ohio River Commission by 70 percent whereas this year the Federal support will decrease by 20 percent.

The workload that the States are attempting to meet now under the Federal Water Pollution Control Amendments and the Federal Clean Air Act have substantially increased.

I document a couple of things in my statement where the reporting requirements have doubled or tripled and a number of Federal court decisions have required State and local agencies to undertake additional and expanded activities as part of their roles under Federal statutes. In attempting to meet mandated program needs, the funding levels provided by State and local governments have already increased by threefold to fourfold over the past several years, but Federal support has leveled off.

In effect, this has meant an actual reduction—both in absolute and in proportional terms—because of the annual increments in the costs of operations.

Discussions with State environmental program directors in various parts of the Nation have shown clearly that the lack of Federal funding support for program grants will, unless corrected, have two important adverse effects. First, there will be an immediate retrenchment and inability to achieve program goals. Second, State budget offices and legislatures will also limit or reduce State program funds.

In order to prevent and correct serious impacts on environmental programs throughout the Nation, your committee is urged to increase the program grants for air and water pollution control and solid waste management by 100 percent.

We are not talking about a budget-busting picture. These are compared to the large-construction-grant areas in HUD or EPA. These are much smaller numbers but they are essential in terms of getting the job done and in managing the larger number of construction grants.

The Federal Safe Drinking Water Act requires special mention since this is the first budget year under the new act. In this instance, the expectations relating to a completely new act probably will not be realized. Regrettably, the legislative authorization for State grants in this act is far too small and the appropriation request is below the authorization. To illustrate this problem clearly, the Great Lakes Upper Mississippi Board of State Sanitary Engineers estimated, in April 1975, that the cost of implemention will exceed the Federal program grant levels by factors of 10:1 and 20:1. I have attached a summary table which shows the amounts by State. Copies of letters are available, if the committee wishes to have them. Unless this shocking disparity is corrected, the new program is doomed to failure. The need for appropriating the full authorized amount of $15 million is obvious.

The fundamental need for all environmental protection programs to be effective is well-trained and professional manpower. These people comprise the staffs which conduct the field inspections and special

studies, review the complex permit requirements, recommend enforcement actions, and provide technical assistance. Sound judgments are needed to adequately protect public health and the environment, while making the best use of public and private environmental investments. Each of the Federal environmental laws specifically authorizes support of education and training of technical/professional manpower. Yet, despite the need, the manpower training program aspects have been decreasing in EPA budgets. This is an area in which Federal support is uniquely appropriate. There is a little or no duplication of State and local activity—as there is in the permit and enforcement aspects. The organizations with which I am associated have all expressed concern about the deteriorating environmental manpower development activities in EPA. I believe, therefore, that a 50-percent increase in resources should be phased in over the next 2 to 3 years.

When you get into the training area of professional persons there is a problem in States doing more than they are already doing.

They are supporting the State institutions like Penn State, University of Pittsburgh, Drexel, and Lehigh, a number of colleges around the States which are getting State funds. What these Federal funds have done is to provide an extra push in specific program areas where there is a known deficiency.

The reason the States have, I think, a difficult problem in handling this issue is that there is really no certainty that the persons being trained will stay within a given State. In other words, this is a national resource we are talking about. I think they are willing to put a lot of money in, but we really see the manpower situation deteriorating. I wanted to add that comment on that.

My final point is on research and demonstrations. Again, this must be primarily a federally supported activity. We must move to reestablish a better perspective of how environmental progress can be achieved. No matter how many eye-catching headlines are printed about Federal court suits—the real advancements come from installation of technically sound facilities and systems. Research and development is essential to improve the environmental protection derived from these installations and to increase their cost effectiveness.

To summarize, in order to obtain the public health and environmental protection that is needed and was intended in enactment of the Federal statutes dealing with air and water pollution control, solid waste management, and drinking water, it is essential that a higher funding priority and increased resources be provided for: State and local program grants, manpower training and education, and research and development.

PROJECTED ANNUAL COSTS AT STATE LEVEL; IMPLEMENTATION OF FEDERAL SAFE DRINKING WATER ACT, MAY 12, 1975

State	Estimated cost per year (million)	Federal grant (thousands)	Data from
Illinois	$2.5	$218	V. Randolph-Health.
Michigan	6.1	277	J. Vogt—Health.
New York	4.0	?	M. Thompson—Health.
Missouri	2.0	150	R. Miller—Natural resources.
Indiana	3.4	170	O. Hert—Health.
Pennsylvania	4.4	375	H. Chapman—Environmental resources.

Mr. BOLAND. Thank you very much, Mr. Gilbertson.

Any questions?

Mr. TALCOTT. Mr. Peloquin, you mentioned septic tank cleaning as being the problem.

Is it true that when septic tanks get filled up to capacity and overrun that they are cleaned and emptied into the central community sewer system?

Mr. PELOQUIN. Yes, sir, this is a real problem. As I mentioned in my statement, we have started a survey in Massachusetts as a pilot State to find out what happens to this.

We are talking with the people who pump out the tanks.

Mr. TALCOTT. If that happens you would think that the cost of it would be put back on the septic tank owners. They should not get off free.

Mr. PELOQUIN. There is a fee. The problem is what to do with it and where to dispose of it.

Most treatment works will not accept the material because of its concentration and toxicity to the biological system. In other places they can discharge it in certain ways. We don't know whether we can have special treatment facilities and whether it can be treated with new technology. It is a real problem as far as biological treatment is concerned.

Mr. TALCOTT. That is an interesting new concept to me. I didn't realize that was a problem. But somebody has to take care of that, I can see that.

Then Mr. Gilbertson, budgets are busted little by little in one program after another. We are talking about a $67 to $73 billion deficit this year by the Federal Government. I think it will go to at least $80 billion. The things we will do in this committee and the things we will have to do someplace else will create a serious problem that I do not think you should take lightly.

Mr. GILBERTSON. I think the things I attempted to outline here are not duplicative of State and local efforts. If the Federal Government would stop trying to do all the enforcing and regulating, I think we would be farther ahead.

Mr. TALCOTT. You bring up another subject which I intended to ask a question about. You talked but the mandatory programs of the Federal Government. They are mandatory programs but they are all programs which I understand the States wanted and are beneficial to the States.

Mr. GILBERTSON. You should have heard my testimony on 92–500.

Mr. TALCOTT. These are not good programs?

Mr. GILBERTSON. We argued strongly that there were many sections of that law which would actually outright duplicate what the States are already doing. We advised the committees strongly that this was going to cost more than they realized, that we were going to run up a big cost factor and a workload which nobody really knew the answer on.

Mr. TALCOTT. If we have enacted programs that are not useful and beneficial to State citizens then that is regrettable. If they are useful to State citizens they ought to be willing to pay for them.

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Mr. GILBERTSON. Nobody knew what we were really getting into but those of us in the field who could see the problems, the record is clear that we tried to make our point.

There was a lot of big push on the things at the time.

Mr. TALCOTT. I will have to save my questions for another time. I know you will be back.

Mr. BOLAND. With respect to the Safe Drinking Water Act that you mentioned in your statement, as you know, that was passed late in December 1974.

Mr. GILBERTSON. Right.

Mr. BOLAND. The authorization for this year is around $54.5 million. The budget request is around $35.5 million. I think you have to walk before you can run.

I would think that a program that is as brand new as that would need to be looked at a little bit before we start appropriating full funding for it. All of us are concerned with safe drinking water, of course. It is an area that the Federal Government is just getting into.

I presume that in the long run this is going to be a lot more costly than $54.5 million.

Mr. GILBERTSON. Of course I addressed myself specifically to the State program grants aspects of it. I tried to give you the best estimate that these States that I have listed here could produce at that time. I think they are conservative, actually, and there is a great deal of concern.

We had our Senate hearings just last week in the State Legislature. I was asked about this question.

I think I got the feeling a little bit that, well, if the Federal Government wants to pass a law, they ought to see their way clear to finance it, you know.

Mr. TALCOTT. Oh, no.

Mr. GILBERTSON. This is the problem we are getting into. If you look at our budget, and I can show you in water pollution we are up around $5 million of State funds, about $18 million of Federal funds. We are carrying our share.

Mr. BOLAND. You ought to because you are creating the pollution within that particular State, I presume, in many areas.

Mr. GILBERTSON. Many of the expenditures we are putting in are coming about as a result of procedural requirements which I don't think are too productive. There are a lot of things in there that we frankly do not think are the right things to do. We are doing them because it is in the law and we believe in doing what the law says but I think we could do it more cheaply if we did not have some of these things. That is my only point.

Mr. BOLAND. I would like to have you detail that, how you could do it more cheaply. That would be very productive, I would think.

Mr. GILBERTSON. Yes, sir.

The House had special hearings last week and we spent approximately the whole day on the stand there—about 6 hours.

Mr. TALCOTT. My impression is that we have enacted legislation which is really necessary for State and local populations, and which the State and local legislatures don't have the courage to enact for themselves. When you do it at the Federal level you sometimes impose bureaucratic costs. If we could eliminate that and get the pro-

grams the local people want, it would be the ultimate solution. So please tell us how to do it. We don't want to spend money if we are spending it on administrative costs and bureaucratic things.

Mr. GILBERTSON. The reporting costs are now 400 percent higher than I think we need.

Mr. TALCOTT. Take a few minutes to outline this and send it to us in a letter.

Mr. GILBERTSON. It might take more than a few minutes, but we will do it.

Mr. TALCOTT. I don't want to impose on your time. We are interested in the same things, even though it may not appear that way.

Mr. GILBERTSON. I know you are.

Mr. BOLAND. Thank you very much. We are delighted to have you. We will stand adjourned until 10 o'clock tomorrow morning.

THURSDAY, MAY 15, 1975.

ENVIRONMENTAL PROTECTION AGENCY

WITNESS

E. J. HUFFINGTON, CLARK COUNTY HIGHWAY SUPERINTENDENT, ILLINOIS

Mr. BOLAND. The committee will come to order.

Mr. E. J. Huffington, Clark County Highway Superintendent for Illinois.

George, I would appreciate it if you would introduce him.

Mr. SHIPLEY. I would like very much to.

I might just say for the record that a few days ago I was involved in a meeting in Illinois with several of the county highway superintendents, and they brought a problem to my attention, frankly, of which I was not aware. From that meeting, they had inquired if they could appear before this committee and others in the Congress, which certainly is their right and privilege.

We are very pleased to have you with us today, Mr. Huffington. If you would like to proceed with your statement, go right ahead.

Mr. HUFFINGTON. Thank you, Congressman Shipley.

Mr. Chairman, I am E. J. Huffington, county superintendent of Highways for Clark and Cumberland Counties in the State of Illinois, with a total of 270 miles of county highways and 1,300 miles of township roads. As an individual concerned with the problems in the area of acquiring Federal funds for county highways, it is a real honor for me to appear before a congressional subcommittee. I realize that we should be directing this testimony on the problems we face to the authorizing committee; however, the problem is of such magnitude that we are striving to bring it to the attention of the entire Congress by any means we have at our disposal.

Our area has a low assessed valuation with both counties totaling $120 million tax base. All local tax revenue is needed for maintenance, and that is inadequate at today's inflated costs. We, in low valuation counties, have depended on Federal aid secondary highway funds for

50 percent funding of our county highways construction projects. Progress was made in developing a good system of rural farm to market roads from 1954 to 1970. Since that time, the red tape has been delaying and stopping our projects as illustrated by three examples from Illinois.

I have 250 bridges over 20 feet in length. Ten bridges have collapsed or had to be closed in the past 8 months. I need 4 million to build bridges in my counties during the next 10 years.

Bridge replacement is one of our greatest needs in rural America. Congress has provided some funding for Emergency Bridge Replacement.

In September of 1974, plans were approved for a bridge over a small stream requiring a waterway opening of 972 square feet as approved by Illinois Division of Waterways.

March 26, 1975, that project was approved for Federal emergency bridge replacement funds.

Since a ruling by FHWA that any channel change of 250 feet or over must be considered a major action, the environmental impact must be considered. This was submitted showing that a channel change of approximately 300 feet was needed to properly aline the stream so that bank scour could be stopped and proper flow through the structure maintained with proper vegetative cover.

The division of waterways approved the proposed plan. The local soil and water conservation district approved the proposed plan. The Department of Conservation refuses to approve the plan. They have suggested that several hundred feet of bank be protected with concrete or rock to stop erosion at an estimated cost of 50,000 or an increase in cost of 33⅓ percent to the project.

A fish survey shows carp, buffalo, and sunfish minnows in this section of the creek and no fish of any size. For years, the department of conservation has attempted to eliminate this type of fish from our streams, lakes, and ponds.

We superintendents have attempted to discuss these problems and are quoted facts about trout studies in mountain streams in Idaho.

The project has been stopped because funds are not available for added cost and FHWA will not approve the project as long as the conservation objection remains.

Many of our small watersheds that require bridges actually have no well-defined channel. They whip back and forth across the valley and vary from year to year. These are small streams or creeks that drain 1,500 acres to 10,000 acres. We really have no choice except to attempt to provide some type of channel to carry that water across our right of way.

Proper stream alinement is required to prevent erosion and undermining of foundation. We Superintendents do not approve the foolish expenditure of funds to satisfy the ego of one man who wishes to show his authority. The second project was started in 1968.

This project involved a wildlife refuge in the Illinois River Area. A county road carrying an estimated traffic of 300 cars per day was planned by the county and approved by the Wildlife refuge on June 20, 1969. The plans were approved and the project authorized by FHWA June 30, 1969. A condemnation suit delayed the project.

About 1970, a new Highway Act became law. Since park or public land was involved, an environmental impact study and 4F statement were required.

This was prepared at a cost of $8,000. As a part of the previous plan, a parking area in the refuge was to be constructed for public use as requested and approved by the refuge custodian.

Now there is a new custodian. He wants no people and has proposed an alternative route that would displace 4 families, cross good farm lands, and still leave two roads to be maintained.

In 1973, the estimate for this project was $360,000. It is now in excess of $500,000 and the problems are still not resolved.

The road was there long before the refuge and no proposal has been made to eliminate the old road.

Rules change so fast that we cannot keep the files current.

In Whiteside County, June 1970, a hearing was held for FAS Construction. The section was partially in an urban area. The rural part was completed. By 1974, an EIS or negative declaration was required since it was an urban area. A negative declaration and new design report was submitted on September 6, 1974. On September 19, 1974, FHWA turned down the negative declaration and required a full environmental impact statement. This was prepared and submitted on February 4, 1975 to FHWA. On April 23, 1975, FHWA now decided an EIS was not needed and a negative declaration would suffice and that is now being prepared for a second time.

We, superintendents of highways, in Illinois are directly responsible to the people and are on the firing line. We have trouble explaining to people that we cannot build a bridge because someone 300 miles away is concerned about minnows in a wet weather stream that is dry 60 to 90 days per year.

We have been directly responsible for conservation practices along our roads for years before EPA became an agency.

We believe that all the studies were planned to solve problems on major construction projects involving massive relocation, new alinement, and displacement of people. If our projects fall in that category, we agree full study is warranted.

However, when we are only improving existing roads and bridges on substantially the same alinement with only minor ROW changes, we believe that we should be spared all the red tape, delay, and costs. We need our funds to buy material for roads, not paper for our files.

In Illinois, the paper in a local project file weighed 3 pounds and a Federal aid secondary project weighed 9½ pounds.

Draft copies of EIS statements must be sent to 70 agencies. We believe that the staffing of these agencies to read all this material on county road projects is a gross waste of funds.

I have here a draft copy of an environmental impact statement that was prepared because 4 feet was needed from a park in Champaign for an easement to slope a bank back to a sidewalk that was being built to serve the park.

Seventy copies of that had to be distributed. Then after the draft copy, it required the preparation of a final environmental impact statement, and that is quite massive.

In a small county, we just do not have the kind of funds needed to do that for minor work. This stack of papers represents the changes that have come across my desk since February of 1975.

Just before I left Illinois, I received a phone call stating that an entry had been made in the Federal Register to require a permit from the Corps of Engineers for any bridge crossing a navigable stream or tributary thereof, or a roadway crossing the flood plain of such stream.

It seems that any stream is a tributary of a navigable stream. What will the cost be to the Corps of Engineers staff to review these requests. Delays of over 4 months are now being experienced on requests for Corps permits for bridges over navigable streams.

I picked this information up from Chuck Miller, the local roads engineer of the State of Indiana. They have another that requires a fish hatchery to be built.

We say to you Congressmen, we do not believe that one set of rules can apply to 50 States. Our problems are various and totally unrelated except for the fact that we all attempt to provide transportation facilities for our people for the least expenditure of funds possible. We can solve our environmental needs on a local and State level.

This is not just an Illinois problem. It has become the major topic of highways meetings all over the country. We eagerly solicit your support to remove redtape and let us get on with the task of providing good transportation facilities.

Our costs have increased so rapidly that we urge you to allocate all highway user funds to the highways authorities to be expended in accordance with the laws of the individual States. If that is done, there can no longer be any passing the buck to Washington. This proposal would effect tremendous savings at the Federal level.

I want to stress again the problems as illustrated by the three cases herein. I want to impress on the committee the tremendous problems that we have in qualifying for Federal funds because of the unnecessary and unwarranted redtape involved to satisfy EPA.

The total population of the two counties that I represent is less than 30,000 and we do not have the funds nor the staff to wade through the maze of redtape that is involved with regard to EPA.

Again, I realize we should be bringing this to the attention of the legislative committee, but any form we have available to bring our problems to the attention of the Congress will be of great help to us.

Thank you very much.

Mr. SHIPLEY. Thank you very much for your statement.

I am pleased that you have brought these severe problems—ones that some of the small counties in America suffer today, because of some of the EPA standards—to our attention. I could not agree with you more, Mr. Huffington, that there is no law that we have ever passed in Congress that we can blanket across the 50 States and expect it to fit all of them.

You mentioned staff. You are the county highway superintendent for two small counties with a population less than 30,000. What staff do you have?

Mr. HUFFINGTON. I have a secretary in each of the two counties that maintain records for me there. I have a foreman, who helps with supervision of maintenance. I have no engineering help whatever.

I attempt to pick up part-time help from other agencies as needed. I have tried to hold costs down in this way. But with this maze of work that we have, our engineering costs are increasing 10 to 15 percent per project.

Mr. SHIPLEY. What about the other counties in Illinois that you are familiar with, do they suffer the same problem?

Mr. HUFFINGTON. Yes; 70 counties of the 102 counties in Illinois fall in this same category.

Mr. SHIPLEY. All having trouble qualifying for Federal funds because of EPA standards that are set across the country that just simply do not fit rural areas, is that right?

Mr. HUFFINGTON. Yes; this is right.

We feel that the standards were set where massive problems existed and people were moving away, building highways presented an entirely different aspect to what the old road had been.

In fact, our first meeting, Congressman Shipley, was when you came to Illinois at the time the Interstate 70 was being relocated, and had we had the legislation we now have, we would not be maintaining two roads across that section of Illinois.

This we feel was the meaning of it, not to tie our hands in attempting to upgrade existing facilities.

Mr. SHIPLEY. On a project where you may extend the roadway, say 2 feet on each side, do you have to operate under the same rules or policy set up for interstate systems? Is this the general rule required?

Mr. HUFFINGTON. This has been until a month ago. A month ago a ruling was put out that things could be termed a major or nonmajor action. But then we encountered the problem of a small channel change that comes in under this same road.

Now at the time that we encounter a channel change in excess of 250 feet, then we have to go into environmental impact statement or negative declaration and go into the full treatment and redtape.

Mr. SHIPLEY. Mr. Huffington, we certainly appreciate you taking your time to come before the committee and apprise us of the problems that we have in rural America.

We thank you very much.

Mr. HUFFINGTON. Thank you.

Mr. TALCOTT. May I just say I want to thank you and commend you for coming. You recognize that you probably came before the wrong committee, but I understand your reason.

I want to commend you for your energy, your time, and your perception. Most of the people in your situation are coming here begging for money, counties that are infinitely richer and more affluent than yours come here and just beg for money.

Here you are coming in sort of a selfless way, telling us about a problem that affects probably every county in America. So you are acting for them.

I commend your selflessness, which is very rare on that side of the table.

Mr. BOLAND. Thank you very much, Mr. Huffington.

Mr. HUFFINGTON. Thank you, Mr. Chairman.

WITNESSES

STEPHEN L. MORGAN, EXECUTIVE VICE PRESIDENT, NATIONAL ASSOCIATION OF CEMETERIES

R. L. McNITT, JR., PRESIDENT, ROSE HILLS MEMORIAL PARK

Mr. ROUSH. Mr. Morgan, we welcome you in your appearance before the committee. Are you accompanied by someone you would like to introduce?

Mr. MORGAN. Yes; Mr. Chairman. I have with me today Mr. R. L. McNitt Jr., president of the Rose Hills Memorial Park, Whittier, Calif. He is also the chairman of the Industry Joint Leagues and the past president of the National Association of Cemeteries.

Mr. McNITT. Mr. Chairman and members of the committee; this statement regarding the President's 1976 budget for the Veterans' Administration, which embraces the expansion of the National Cemetery System is respectfully submitted by the American Cemetery Association, the National Association of Cemeteries, the Southern Cemetery Association and the Western Cemetery Alliance, which nonprofit associations are composed of over 10,000 municipal, fraternal, religious, nonprofit community and other private cemeteries situated throughout the United States and its possessions. We understand a similar statement has been filed with the subcommittee on behalf of the National Catholic Cemetery Conference.

CONGRESS AGAIN FACED WITH PROLIFERATION OF THE NATIONAL CEMETERY SYSTEM

Expansion of the National Cemetery System has concerned a succession of Congresses and Administrations for almost 30 years, being most recently reflected in the passage by the 93rd Congress of Public Law 93–43, the National Cemeteries Act of 1973 (S. 49, report No. 93–155).

I might say parenthetically no new national cemetery has been established since 1950.

Recognizing the astronomical cost of providing Federal cemeteries with the frequency of post offices, if they are to serve the veteran population equitably, section 903 of Public Law 93–43 authorized the Veterans' Administration to pay a sum not exceeding $150 for a plot (or interment allowance) to each eligible veteran that he might exercise a personal choice in the selection of a local, hometown cemetery of the veteran's faith, of his or his family choosing, close by and convenient for visitation not only by comrades but, more important, the widow and family, within a convenient distance from his home and friends.

Incidentally, Mr. Chairman, in submissions to this subcommittee in March of last year the Administrator estimates his clientele at around 65 million veterans and plus around 3.9 million survivors of deceased veterans.

Rather than commit the Nation to an expenditure estimated some years ago to be in excess of $3,200,000,000, the 93d Congress chose to discharge its obligation to the veteran at a relatively modest, one-time cost to the taxpaying public of the United States.

VA RECOMMENDS (4) REGIONAL NATIONAL CEMETERIES AND LUXURY BURIAL FOR HIGH RANKING OFFICERS

Section 3(a) of Public Law 93–43, directed the Administrator (VA) to conduct a comprehensive study and submit his recommendations to Congress * * * after the convening of the first session of the 93d Congress. Among other things, the study was to include criteria which govern the development and operation of the new National Cemetery System, including the concept of regional cemeteries. Although no action has been taken by the appropriate committees of Congress with respect to the study, including proper authorization, the Veterans' Administration, in its 1976 fiscal year appropriation request now before this committee, is requesting $9 million for the construction and development of four regional Federal cemeteries. This request will be repeated in subsequent years because of the Veterans' Administration's stated goal of constructing 10 regional veteran's cemeteries throughout the Nation within the next several years.

In addition, the Veterans' Administration is requesting $2.2 million for the development of 38 acres for burial and construction of a mausoleum/columbarium luxury entombment at Willamette National Cemetery, Portland, Org. We think it important for Congress to recognize this is a first step to luxury burial presently utilized by a small percentage of the American population because of the higher cost associated with this method of memorialization. In earlier years, attempts to set aside more desirable burial space in our national cemeteries for generals, admirals, and other high-ranking officers, over and above that accorded the average enlisted man, was understandably dismissed by Congress.

Beyond the $11.2 million the Veterans' Administration is requesting for the construction of four regional cemeteries, including the expansion of Willamette National Cemetery, they are also seeking seed money of $5 million for matching grants to State governments for construction of State veterans' cemeteries, even though only two States have thus far expressed an interest in participating in the proposed program.

Again parenthetically on reaching Washington the day before yesterday I find there is a bill in, I believe it is H.R. 6396 by Mr. Beard to transfer to the VA the existing State veterans cemetery there. The pattern, in other words, is to transfer all of that over to the Federal Government, I presume.

Mr. TALCOTT. The introduction of one bill is no pattern.

Mr. MCNITT. I understand, Mr. Talcott. But there are in addition bills in to provide for the expansion of the system through the States.

The analogy I allude to in my next paragraph here relating to the VA justification on the basis of their hospital experience where in the 1950's and 1960's the VA hospitals were understaffed and were unable to handle the load and in order to expedite the matter of the care for the health of the veteran there was an elaborate State matching grant program for State hospitals.

There is no way to serve the veteran equitably short of a cemetery available to every veteran within 15 miles of his home. At page 96 of the VA study mandated by Public Law 93–43 (Senate Committee Print No. 24, 93d Congress, 2d Session) the VA indicates only 17.5

percent of veterans utilize Federal cemeteries where they are within 50 miles of the residence at time of death, and only 1.6 percent outside a radius of 50 miles. Indeed, private cemetery statistics show that 90.4 percent of all burials in private cemeteries in the United States fall within a 15-mile radius of the place of residence at time of death.

Using but one example—the VA recommends appropriation for a 500- to 785-acre regional Federal cemetery at one of three potential sites to serve California, Arizona, Nevada, and Hawaiian veterans. The closest distance from any of the proposed California sites to any large concentration of veterans is 60 miles, and the furthest distance is over 2,000 miles.

The 2,000 is Hawaii. Under their program they throw Hawaii in, but I don't think anybody can reasonably believe that they will transport the remains of all Hawaiian veterans over 2,000 miles to this type of regional facilities.

A similar situation will be found in regard to the other proposed regional sites about the country. It is our considered opinion that the distance between a given cemetery and a person's place of residence at the time of death is, and will continue to be, a primary controlling factor in the final selection of a cemetery.

Private cemeteries can adequately serve the entire population of the United States in existing space now available for the next 140 years—and at lesser cost to the taxpayer. On pages 44 and 45 of the VA study, it is indicated that the "average unfilled capacity of (private) cemeteries of all types is sufficient to provide ground burial for the population of the United States for about 140 years."

Fiscal year 1976 VA request for appropriations for operations and maintenance indicate an average cost per interment of $108.96 with continuing cost of maintenance of each grave in perpetuity, estimated in 1964 at $4.93 per space annually, with an actual cost in 1974 of $8 per space.

The average cost per grave in private cemeteries as of September 1974 is $158, which includes perpetual maintenance of each grave by virtue of State irrevocable maintenance care fund covering the private cemeteries. The income generated from these trusts can only be used to assume continued care and maintenance of each grave as well as overall maintenance of the respective private cemeteries.

Thus, the present $150 plot or interment allowance alone, coupled with the social security lump-sum death benefit, is more than ample to provide for the interment of the veteran at a one-time reasonable cost to the Nation.

We do not agree with the analogy offered by the Veterans' Administration that the circumstances are similar to those associated with the need to construct veterans State hospitals in the 1950's and 1960's, with the assistance of State funds, because of the then lack of VA hospitals coupled with the increasing veterans' population. Memorialization of the dead, whether they be veterans or not, is uniquely different than caring for the aged and infirmed.

The $150 plot or interment allowance established by Congress was a success. Congress and the administration achieved three major objectives in incorporating the $150 plot or interment allowance in the National Cemeteries Act of 1973: (1), It provided a basis for a viable alternative to achieve equity for every veteran in lieu of the vast prolif-

eration of distant and costly Federal cemeteries; (2), It recognized the fact that a significant portion of the veteran population elects not to be buried in Federal cemeteries because these cemeteries are not consecrated grounds which, in turn, precludes meaningful interment; and (3), Congress recognized that under State regulation of non-Federal cemeteries and State requirements for irrevocable perpetual care trusts, the care and maintenance of all graves, including veterans' graves, are provided in perpetuity without further cost to the Nation's taxpayers.

Current industry surveys, and, indeed, the VA's own figures in the fiscal year 1976 request show the $150 plot allowance is being utilized by the vast majority of veterans, and this after only a brief experience with the new allowance.

American taxpayer(s) becomes guarantor for the trust fund for care and maintenance of the national cemetery system. The cost(s) of land, operations, and maintenance in perpetuity, together with management overhead are associated with any cemetery, Federal, State or otherwise; moreover, these costs will escalate rapidly in years to come.

In reference to the use of donated land, land already in the possession of the Federal or State government, the forerunner of today's Office of Management and Budget suggested to the Congress years ago that the huge costs of expanding the Government cemetery system are not associated with the acquisition of the land. Although it is true that land cost can be an important additional item of cost, particularly when it is in the vicinity of large concentrations of veterans where prospects for using Federal or State lands are small and acquisition costs extremely high. As they so correctly pointed out, the important elements in the astronomical costs inherent in an expanded system are in land preparation, site development, and more significantly, in continuing requirements for maintenance in perpetuity.

It cannot be emphasized too strongly that in all new Federal cemeteries constructed, the American taxpayer, rather than the individual consumer, becomes the guarantor of the maintenance trust for the never-ending care and maintenance of each gravesite at each new Federal cemetery.

Congress has not established future burial policy for veterans. There are many alternatives to a veterans' cemetery system of any type, overlapping and duplicating the local cemetery found in every city, town or hamlet in America. And while we speak for more than 10,000 viable non-Federal cemeteries in this Nation, more than 50,000 cemeteries exist in the United States, when you include the small churchyard and lesser municipal cemeteries, which are found in the smaller communities of our Nation.

If there is some great demand for special memorialization on behalf of the veteran constituency, the Veterans' Administration could well create by contract, as the Federal Government has done in the past, special veterans' sections in private cemeteries throughout the Nation. Or, if we are speaking of the honor and recognition of serving in our Nation's Armed Forces, suitable plaques or cenotaphs memorializing each veteran could be placed in or about the grounds of existing national cemeteries where appropriate ceremonies take place each year honoring all veterans.

In summary, Mr. Chairman, while Congress directed the Veterans' Administration, pursuant to section 3 of Public Law 93–43, to make a study of alternative proposals covering "criteria which governs the development and operations of the national cemetery system," Congress has not as yet responded to the various alternatives set forth by the VA in the study submitted to Congress January 21, 1974. Moreover, a close examination by your committee will reveal that Congress has not yet authorized the expenditure of those funds which have been requested by VA to implement the expansion of the national cemetery system. We repectfully suggest that before your committee embarks upon a course of action which is fraught with uncertainty, a course of action which has not been fully scrutinized by this committee, as well as other committees of Congress, you may well desire to study the various alternatives available to you.

As recent as Monday of this week, the chairman of the newly created Subcommittee on Cemeteries and Burial Benefits of the House Committee on Veterans' Affairs stated, in his opening remarks at their first hearing: "Today we will begin our examination of the national cemetery system by focusing on the study of that system which was submitted by the Administrator of Veterans' Affairs in January of 1974." The chairman further stated that, "I want to emphasize once again that we are a new subcommittee created as a result of the transfer of function from * * *. In essence, we are starting together, the Veterans' Committee and the Veterans' Administration, to embark on a long overdue examination of our policy toward veterans' cemeteries and burial benefits."

Mr. Chairman, the national cemeterial problem will never be solved in an equitable way for every veteran in any other manner than exists in the fact of the present plot allowance, unless Congress is to embark on the enormous cost of providing a veterans' cemetery within a short distance of every veteran's place of residence.

We thank you for the opportunity to express our views. We pledge our cooperation to the work of your committee and staff, as you examine the Veterans' Administration 1976 fiscal year requests to construct and develop Federal regional cemeteries.

Mr. ROUSH. Referring to Public Law 93–43, section 1006 under acquisition of lands, let me quote this and ask your opinion as to what this means.

> As additional lands are needed for national cemeteries, they may be acquired by the Administrator by purchase, gift, including donations from States or political subdivisions thereof, condemnation, transfer from other Federal agencies, or otherwise, as he determines to be in the best interest of the United States.

Mr. MCNITT. Yes, sir, but as I understand it the House Oversight Committee feels that it is not yet an authorization. I understand your rules in that regard.

Mr. ROUSH. This, to me, is authority. It means to me that the Administrator does have the authority to acquire the lands for these national regional cemeteries which are presently being proposed.

Mr. MCNITT. Congressman, you may be right, but that is not the advice that we get.

Mr. ROUSH. You might call that section of the law to the attention of your counsel and see what he says about it. That is the way I read it.

Are there questions?

Mr. TALCOTT. I have a question. I think the people here are presenting a very important issue. Probably it should be addressed to another committee, but we do have some responsibility to appropriate funds for a whole series of new national cemeteries.

As a matter of fact, I think we have adapted an incorrect policy, but that is not for me to judge; it is for the whole Congress to judge. But we are facing down the line a policy where maybe 50 percent or more of our population are veterans and entitled to burial in national cemeteries, together with their families and this will require care in perpetuity. The cost of maintaining perpetual care are enormous.

Some of the younger people in America ought to be saying: "You know, what are the long range open ended costs on this?" We simply have not done it.

Mr. MCNITT. In that connection, Mr. Don Johnson, the former Administrator of the Veterans' Administration, testified before Mr. Proxmire's committee last year that his estimate through fiscal year 2000 on these 11 new cemeteries would cost the Government about $585 million.

Mr. TALCOTT. I think we have to obtain more evidence than just the testimony of one person. But I do think there is a problem, and an issue and concern that we ought to have.

Right now the VA is proposing to build a new VA national cemetery at March Field just outside of Los Angeles, within 50 miles of the metropolitan area. They say that is their criteria. This means it will be filled almost immediately. The people who live away from that area, say in San Francisco or Albuquerque, will not have the benefit of burial there. So it is no longer an honors concept to be buried in a national cemetery, which I think it should be.

It should be an honors concept but now it is an economic concept. The distance is one criteria, but I think it is more related to cost.

I think the VA is making a mistake. In my judgment we should have the national cemetery as closely between two metropolitan areas as we can. Take, for instance, Phoenix, Ariz., and Los Angeles. A cemetery between the two would be better because the people who chose to be buried there would be buried with the honors concept and it would not fill up nearly so fast. Then we would separate those who are buried in national cemeteries for economic reasons and those buried for honors reasons.

I think the concept is wrong. I think it should be considered by the Congress. I would hope it could be revised.

I think, as I said, that you have a lot of courage coming here and making these recommendations, because the policy of VA is dictated very strongly by the service organizations, the Veterans of Foreign Wars and American Legion, and these people. I think their views could be changed, if the proper facts were presented to them.

If every veteran had the opportunity to be buried where he wants to be, namely, in his hometown, or church cemetery, this is what we should be striving for, except the very important honors concept which should be the principal reason for the national cemeteries. I don't know if you are right or wrong, but I am grateful that you had the courage to propose the review of our national cemetery policy before we invest wrongly literally billions of dollars.

Mr. McNitt. Congressman, you are talking long-range about $6 billion on up.

Mr. Talcott. Unfortunately most of us on this side of the table think about the "now" situation, the next election, rather than the next generation in the future; I think you have a good idea.

Mr. Rousch. Mr. Baucus?

Mr. Roush. Mr. Baucus?

Mr. Baucus. No questions.

Mr. Roush. Thank you.

EPA Support of Graduate Training

WITNESSES

THEODORE H. RIDER, MANAGING DIRECTOR, NEW ENGLAND CONSORTIUM ON ENVIRONMENTAL PROTECTION
DR. N. BRUCE HANES, TUFTS UNIVERSITY
DR. LAWRENCE KORNREICH

Mr. Roush. Mr. Theodore Rider, Managing Director, New England Consortium on Environmental Protection.

Mr. Rider, we will receive your statement for the record.

[The statement follows:]

The Role of University Consortia in Air Pollution Manpower Development

I. INTRODUCTION

Mr. Chairman and members of the HUD-Independent Agencies Subcommittee, my name is Theodore H. Rider, managing director of the New England Consortium on Environmental Protection. NECEP, as it is commonly known, is an unincorporated association of 14 New England universities engaged in manpower development activities, primarily under the support of the U.S. Environmental Protection Agency (EPA), Office of Academic Training, Air Pollution Training Institute, Research Triangle Park, N.C. This consortium has been in existence since late 1970 and has made noteworthy achievements[1] in education, training, and placement of individuals in Federal, State and local air pollution control and environmental control agencies in the New England area, concurrent with the generation of reports, papers and other documents, of use to these agencies.

The purpose of this testimony is to identify specifically these achievements, and place them into perspective with other worthwhile options which are currently also being employed for the purpose of manpower development in air pollution control. In this manner, it is shown that increased support to the university consortia conept can offer an opportunity to complement the other manpower development programs, by attracting people not being supported by them and by placing high percentages of its graduates in agencies, at costs which are attractive in terms of Federal investment.

One comprehensive piece of testimony which justifies and summarizes manpower needs is "Report on Air Pollution Manpower Development," prepared for presentation to the Subcommittee on Environmental Pollution, U.S. Senate, Senator Edmund Muskie, chairman. This statement was submitted for the hearing on March 3, 1975, by Dr. Wade W. Moeller, head of the Department of Environmental Health Sciences of the Harvard University School of Public Health, and chairman of the National Air Pollution Manpower Development Advisory Committee (NAPMDAC) and recommends the six following areas of manpower development program support for fiscal year 1976:

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[1] Internal files of the New England Consortium on Environmental Protection serve as the basis of several parts of this testimony. Items listed below in the bibliography are available (item 4).

1. Graduate air pollution training grants	$1,800,000
2. Graduate fellowship support	1,000,000
3. Summer institutes	100,000
4. University consortia and environmental management institutes	[1] 550,000
5. Short-term technical training	2,000,000
6. Air pollution and manpower development planning and assessment	200,000
Total	5,650,000

[1] Of this amount, $100,000 is related to environmental management institutes and is recommended for annual continuation at that rate.

Evidence [2] shows that reduction in Federal support to manpower development programs is actually hampering the ability of State and municipal agencies to discharge adequately their responsibilities under the Clean Air Act, which requires that the Environmental Protection Agency accomplish what the States fail to do. Further, these cuts may be damaging the ability of the universities to sustain the resources necessary to continue high quality training programs.

Of the above categories, the third and sixth are minor in fiscal impact and are not discussed. Of the remaining four, it can be shown that each is unique, and that university consortia, in combination with the others, can be employed to a significant degree in a cost-effective manner to help develop air pollution control manpower resources.

II. UNIVERSITY CONSORTIA [3]

The concept of university consortia was developed in 1969 and 1970 by Dr. Harry P. Kramer, recently retired, but then of the National Air Pollution Control Administration. At that time six consortia were formed, including NECEP, which was originally known as the New England Consortium on Air Pollution. However, since funds available for consortia support were being reduced as early as 1973, an EPA decision was made to support only one or two, to serve as an example of what could be done nationally if support were available for all of them. NECEP was fortunate in being selected as one of the consortia to receive modest funding for this demonstration purpose, and has continued since to try to develop itself as an effective and efficient organization.

To date NECEP has supported over 200 students, primarily at the graduate level. Of the 56 graduated to date, over 50 percent have gone in Federal, State and municipal agencies, or other organizations in the air pollution field. As figure 1 illustrates, the NECEP program has accomplished its training with decreasing costs per student, running currently at about $2,000.

[2] "Report on Air Pollution Manpower Development," testimony prepared by Dr. Dade W. Moeller for submission to the Subcommittee on Environmental Pollution, U.S. Senate, Senator Edmund Muskie, chairman, hearing of Mar. 3, 1975.

[3] "Consortia Activities in Support of Agencies," by Theodore H. Rider, APCA No. 74–167, June 1974.

The NECEP program responsible for this success is structured primarily around summer internships by means of which students actually have an opportunity to intern in Federal, State, and local agencies for a period of about 2½ months under NECEP auspices, and under the academic direction of NECEP. These programs are carefully structured so that the participating students gather periodically throughout the summer, beginning with an initial 1-week training conference and ending with a student-managed conference in which they present the results of their summer studies. There are numerous other aspects to these programs which enhance their interuniversity and interdisciplinary nature, appropriate descriptive materials being available from NECEP.[4]

Cost-sharing support by these agencies for the internships is on the increase, now approach 30 to 35 percent, due to a high degree of program acceptance. Concurrently, student applications to the program are increasing to the point that only about 20 percent can now be accepted, owing to NECEP budget limitations.

One of the unique reasons for success of this program is that students have reacted favorably to the operational agency exposure they are offered through it, and those continuing into agency employment have done so with a sense of dedication and commitment developed from their actual experience with the NECEP program.

Not only has it been possible to achieve these remarkable cost and placement results with this program, but it is important to note that during the course of their participation in the NECEP activity, students prepare reports and papers[4] which help supply agency needs for information and analsyis, and have not only been used for expert witness testimony, but have been disseminated as agency products.

III. TRAINING GRANTS

Traditional air pollution traineeships have, for years, accounted for the majority of people receiving university training for the purpose of employment in agencies or related air pollution control jobs. These traineeships, since 1969 through fiscal year 1975, have supported 2,446 students: 652 at the technician level, 325 at the bachelor of science level, 1,276 at the master's level, and 193 at the Ph. D. level. This has been done at an average cost per student to the U.S. Government of about $5,000,[5] which does not include significant costs of facilities, maintenance, administration, and other related faculty costs which have been absorbed by the universities in the conduct of these programs. The continued existence of these traineeships is therefore seen to be critical to the maintenance of these university capabilities and cannot be offset by the impact of: fellowships, which involve far fewer people; short course training, which does not have the same requirements for faculty and facilities; or university consortia, which succeed at low cost largely due to the multiplier effect of having students who are otherwise supported by non-Federal money, and also by having access to resources otherwise justified by traditional traineeships.

IV. FELLOWSHIPS

Unique in being offered only to employees of State and municipal agencies, fellowships offer the opportunity of full-time university attendance for 1 or more years so that the employee can return to his agency better able to support its requirements as a technically more competent person. These programs are highly effective[6] in returning most of the individuals to the agencies. However, due to their proposed elimination, no new fellowships are expected to be awarded after June 30, 1976.

It is currently estimated that the cost of fellowships is approximately $7,500 per full-time equivalent fellow.[5] Fellowships have proven to be a valuable incentive for employees in recent years, and in fact, have been used to assure that the more outstanding employees remain with control agencies.[5]

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[4] Bibliography materials developed by the New England Consortium on Environmental Protection, 1971 through 1974.

[5] Conversation with Mr. R. E. Townsend, Chief, Office of Academic Training, Environmental Protection Agency, Durham, N.C., May 1975.

[6] Conversation with Mr. Edgar Bernard, Environmental Protection Agency, region I, April 1975.

V. SHORT COURSE TRAINING

Short course training activities since 1968 have attracted large numbers of agency personnel for typical periods of about 1 week, on the average. Figure 2 indicates this performance, which currently is estimated to meet only 30 percent to 35 percent of agency needs in the short course training area. The effect of requiring payments of $30 to $56 per day for nonexempt attendees has resulted, however, in a rapid falloff in both the number of trainees and the number of man weeks per trainee. Further, the Federal Register[7] has stated that subsequent to July 1, 1975, all attendees will be required to pay these fees, without exception. The fee structure has been designed so that if it is universally paid, these programs should be self-supporting, at current attendance levels, and therefore would not represent a net operational cost to the Government. However, their

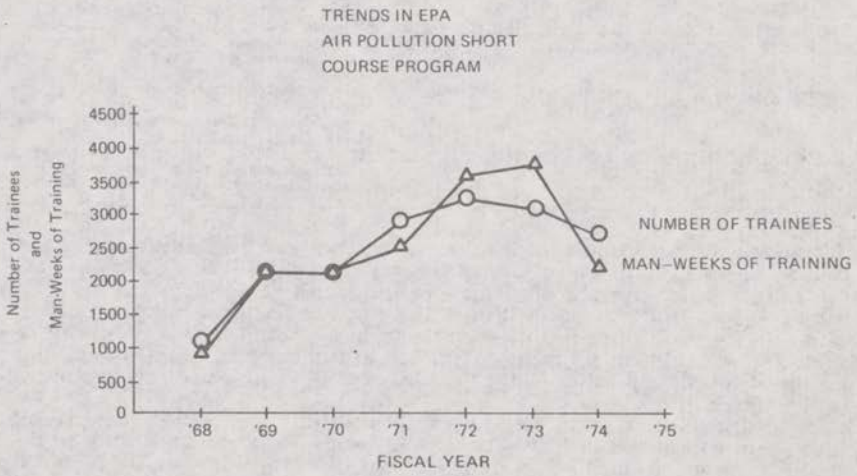

Figure 2

successful maintenance, on this basis, to the extent that they are taught within universities, could depend on the existence of proper faculty and facilities which, in turn, are being impacted by traineeship cuts. Therefore, the program may not be able to be self-sustaining if universities are dependent upon for their conduct, and if the current traning grant cuts continue, unless other special assistance were made available.

VI. PERSPECTIVE

Table I indicates, for fellowships, short course training, traineeships, and university consortia, a number of facts which indicate the uniqueness of each of these four manpower development alternatives, and point to the prospect that university consortia can be developed into an effective source of agency employee candidates, together with the traineeships which now supply most of these candidates.

Both fellowships and short course training are designed to retain and upgrade current agency employees. They can both be successful in accomplishing this objective; however, fellowships are currently scheduled to be eliminated after fiscal year 1976 funding. Fellowships have been highly successful in retaining and upgrading agency employees, in spite of competition for trained manpower from other organizations ready to pay significantly higher salaries than those available from State and municipal agencies.

After July 1, 1975, short course training is designed to be theoretically self-supporting, and normally retains 100 percent of the agency employees involved.

[7] The Federal Register, vol. 38, No. 228, p. 32806, Nov. 28, 1973.

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The number of individuals able to avail themselves of this training has dropped, however, to an estimated level of approximately 2,700 in fiscal year 1975.[5] It is currently estimated that this form of training meets only 30 percent to 35 percent of the agency needs, however, and therefore, while effective, appears to be inadequate possibly because of soaring agency responsibilities and the application of user fees which tend to prevent employees from being released to attend the courses.

TABLE I

	Employment effectiveness	Annual cost to United States per trainee	General characteristics
Fellowship	Retain about 80 percent.	About $7,500	Retain and upgrade promising employees. Increases technical competency of agency leadership.
Short course training	Retain essentially 100 percent.	Theoretically self-supporting after July 1, 1975.	Maintain and upgrade general technical competency of agency employees. Currently estimated to meet only 30 to 35 percent of agency needs, however.
Traineeship	Place about 50 percent.	About $5,000	Primary source of newly trained employee candidates—program significantly responsible for maintaining university capabilities in faculty, facilities and equipment.
University consortia	Place 50 to 60 percent.	About $2,000	Can be developed into cost effective source of employee candidates, but denends partly on university resources maintained for traineeships.

Traineeships have, for a number of years, been the major source of newly trained Federal, State, and municipal agency candidates. These programs have not only been effective in placing properly trained people into the agencies, but have been to a significant degree, the justification for maintenance of required levels of faculty, facilities, and equipment within the universities conducting these training programs. With the executon of anticipated cuts, this justification is disappearing, and the resources are, in many cases, being dropped by the universities.

University consortia have been able to demonstrate a considerable degree of success. In doing this, the consortia have depended to a certain degree on the university resources justified by traineeship support. Therefore, consortia should not be seen as a substitute for traineeships, but rather as an additional and efficient means of helping the universities and the Environmental Protection Agency place more people into agencies.

VII. CONCLUSION

Given the fact that the consortia concept has proven successful on a modest scale, it is reasonable to conclude that additional support to consortia throughout the country can be an effective complement to traditional traineeships and other advantages of multiuniversity, multidisciplinary student activities which have been shown to be successful.

For example, if university consortia funding were gradually increased up to a level of five programs by 1980 at the $150,000 per year level recommended in the referenced Senate testimony,[2] the 1980 capability of the consortia to control agency employee candidates would be at the level of about 375 individuals per year, with an annual expectation that over 200 of these would actually be placed, at an annual cost in 1980 of $750,000, representing an average of $2,000 per trainee.

Mr. ROUSH. At the time the hearings were set up we did not anticipate that the House would be in session today and we would be under so many time constraints. I would like to receive your testimony for the record. Then could you summarize your statement in not more than 5 minutes?

Mr. RIDER. I would be delighted to do so. I would like to offer for your review copies of the most recent report of our organization.

Mr. ROUSH. We will receive it for the file.

Mr. RIDER. Before briefly summarizing I would like to identify two individuals here with me, one member of our own university consortium, Dr. N. Bruce Hanes of Tufts University and Dr. Lawrence Kornreich.

I say in my statement that I would like the training opinions for graduate level and undergraduate level training for potential State and municipal employment to be broadened.

Traditionally fellowships and short course training have been offered for employees as a means of upgrading them. Traineeships have been offered to university students as means for training them for agency employment.

In the past few years the consortium concept has been tried and has been found to be quite successful in placing 50 to 60 percent of its graduates to date in Federal, State and municipal agencies or environmental control jobs of appropriate nature, that is within the field. In addition, current evidence indicates that the cost of the consortium means of training averages about $2,000 per student and therefore a little under 4,000 placed in these jobs, as opposed to about $5,000 per student for trainingships and $7,500 per student for fellowships.

Short course training is unique in the sense that subsequent to July 1, 1975, it should ideally be self-supporting. However, there are some questions that can be raised in this area that are pointed out in my written testimony.

Therefore, I would simply like to conclude my verbal remarks by saying that there have been recommendations for continued EPA support of these types of graduate training.

I would like to draw attention to the fact that the consortia has been successful to the degree that they have been able to operate and that there seems to be merit in continuing them and expanding their activities to include more than the one or two that have been modestly funded so far.

The output of this should be in the next few years an increased level of suitable potential employees for agencies at reduced costs in conjunction with and not instead of traditional training grants, fellowships and short course training.

Mr. ROUSH. Mr. Talcott.

Mr. TALCOTT. Who takes these courses?

Mr. RIDER. The courses are taken by students enrolled in the universities.

Mr. TALCOTT. Who are looking for good jobs in Government or environmental work?

Why don't they just go to a school or university and pay their fees and pay their way in order to get this good job? Why do we have to pay the trainee and then give them a job afterwards? Are we in the business of cradle-to-grave training?

Mr. RIDER. There seems to be evidence, and for this I cite the testimony which is cited in my remarks, given to the Subcommittee on Environmental Pollution of the Senate by Dr. Moore. There is evidence to indicate that if support of some kind is not available that many of the students do opt for other areas.

Mr. TALCOTT. I am sure that many of them will opt for this area just because the support is available.

That is what they did in the space era. Young men who intended to be doctors and dentists suddenly got all these fancy fellowships and converted themselves into space scientists. When the space era was over they were selling gasoline.

I just have this general question of just how much money should we spend in training people who should be trained because they have such good potential and an opportunity for good jobs. There is a new era of environmental jobs that are almost available for the asking for people who get themselves trained.

Mr. RIDER. Well, Mr. Talcott, I am sure that there is merit in your question, but I am not sure it is universal. I would submit that in any cross section there are certainly those who will take advantage of it for that reason and there are others who would legitimately take advantage of it in terms of doing something that they feel they would like to do legitimately, taking advantage of what financial support might be available.

In the instance that we have tried here, which is an intern program in which the students actually are able to intern in agencies during a summer session but under the academic auspices of the universities we have been very successful in having the students identify an esprit de corps with the agencies and develop a dedication to working in this.

I might point out that the salaries available in most of these agencies, according to the information I have available, is marginally and sometimes not quite competitive with other demands.

Mr. TALCOTT. Salary is not the only thing that people live and work for.

Mr. RIDER. That is true.

Mr. TALCOTT. Thank you.

Mr. ROUSH. Thank you, Mr. Rider, although your time in appearing before the committee has been short, the committee does recognize the fact that a lot of time and effort went into the preparation of your testimony and it will be duly acknowledged and noticed by the committee.

Mr. RIDER. Thank you very much.

ENVIRONMENTAL PROTECTION AGENCY

WITNESS

PROF. CARL DJERASSI, CHAIRMAN AND PRESIDENT, ZOECON CORP.

Mr. ROUSH. Our next witness is Professor Carl Djerassi, chairman and president, Zoecon Corp.

The committee recognizes the fact that you are a great scholar and a fine scientist and we are aware of your achievements. You may proceed.

Mr. DJERASSI. My personal professional recognition—whether through election to the U.S. National Academy of Sciences and several foreign academies or through receipt of the National Medal of Science and other awards—is based primarily on my academic research during the past 20 years as well as my industrial experience in the pharmaceutical field, notably the development of the first oral contraceptives. I am citing this to indicate that I am familiar with basic as well as applied research and that I recognize the importance of regulatory agencies; I know what it takes to convert a laboratory discovery into

a product utilized by millions of people. I am one of the founders and chief executive officer of Zoecon Corp., a small company formed in Palo Alto, Calif., for the purpose of developing new methods of insect control which are environmentally more desirable than existing pesticides. This has been my first exposure to the Environmental Protection Agency, the principal regulatory agency responsible for insect control agents. In only 6 years, Zoecon has achieved international recognition in scientific circles for the quality and pioneering nature of its research, particularly in the area of insect hormones (insect growth regulators) as new approaches to insect control. A few weeks ago, we actually received the first registration by the EPA for an insect growth regulator for the control of mosquitoes.

I am only making these personal and corporate biographical remarks to indicate that many of my comments dealing with the EPA and appropriations related to this agency are based on direct and recent knowledge. I am testifying before your committee because I have the uncomfortable feeling that the public, the Government and many scientists are operating under the illusion that fundamentally new advances in the pesticide field are just around the corner, and that most of the environmental problems associated with standard insecticides will be solved soon. I am convinced that if any progress on major innovations is to be accomplished, incentives as well as operational modifications have to be instituted at the level of the EPA and that these are most likely to come through action by your committee. Insect control agents as well as other products for plant protection are an absolutely indispensable component for increasing or even preserving our present level of food supply. The EPA which regulates large scale field research and commercial introduction of these materials is faced with an impossible task at the present time.

Congress and the public demand greater safety, reduced environmental hazard, reduced persistence and more selective efficacy and they would like this today.

I would like to outline some of the key points I am going to make here and perhaps encourage you to read this in more detail and perhaps implement them in your deliberations for the appropriations of EPA.

I am addressing myself to one aspect of EPA, the one part I have become intimately involved and familiar with and that is that portion dealing with the pesticide field.

In my first page, I said:

> I am testifying before your committee because I have the uncomfortable feeling that the public, the Government and many scientists, are operating under the illusion that fundamentally new advances in the pesticide field are just around the corner and that most of the environmental problems associated with standard pesticides will be solved soon.

On the second page, I state that the Congress and the public demand greater safety, reduced environmental hazard, reduced persistence, and more selective efficacy and they demand all of it today.

Mr. TALCOTT. Is that wrong?

Mr. DJERASSI. No.

It is wishful thinking. All of this is supposed to be brought about by a relatively new and inexperienced agency staff following a regulatory law which has many sections undergoing constant change prior to implementation.

The EPA is asked to complete the review of nearly 40,000 old pesticide products by October 1976, which I think is an impossible job, and at the same time is asked to regulate large scale field research, give ultimate approval for commercialization and monitor new products. EPA is being asked to do this with minimal staff additions while its work load will increase by 300 percent during the next 2 years.

I once won the National Medal of Science from President Nixon because of my role in developing the first oral contraceptives. I am familiar with research and I am a firm believer in regulatory agencies. I think they are necessary and I believe in the relationship between the agency and the people who need to be regulated.

You need a regulatory situation. However, you are dealing here with exceedingly complicated matters, which are highly sophisticated and complicated. The staff that is asked to evaluate these both quantitatively and qualitatively is in general not really up to the job. It is up to you gentlemen to do something about this.

I have outlined these recommendations that I made really starting on page 3. That is outlined in detail in a fairly important paper which I added to my testimony and which I hope you can reprint.

It comes out in the November issue of Science. It is called "Insect Control of the Future, Operational and Policy Aspects."

This is addressed to policymakers, not scientists. It is addressed to people like you. The main difficulties that both the industry groups and the regulatory agencies are not aware of is the fact that there are certain fields of pesticides where a year cannot be divided into 12 months.

The year consists of 4 months because insects and plants mature and grow during very limited amounts of time. The EPA also has to approve large scale field research. That can only be done in the summer. If you apply in February for experimental permits and ask for them to be granted in May and the agency gives it to you in June, you have lost an entire year. Similarly, when you ask for registration of products you have the same problem. EPA has a problem for 4 months when they need a large number of people and the rest of the time there is a more even flow.

I come on this in my recommendation 3. Recommendations 1 and 2 that I have in here really refer to doing something about upgrading the quality and the quantity of the personnel at the EPA.

I particularly point out that you need people considerably beyond the Ph. D. level for many of the review processes.

People should be operating at a civil service grade of approximately 11 rather than 9.2 which I consider undergraded for that staff of the EPA. I appreciate that OMB has been involved in this and I think they have been quite derelict because they have not been under the social penalties for their incredible delays.

On page 4, I said: The delays in handling applications, be they experimental permits or full registrations, are simply shocking. No differentiation is being made between fundamentally new approaches or products and pedestrian modifications of standard pesticides. Yet, if a larger proportion of the present staff is put into evaluation of

new materials, then the reregistration of older products can either not be completed by the statutory deadline or else will be done in a completely perfunctory way. Alternatively if reregistration is given top priority then new products will suffer even worse delays than is now the case. To my knowledge, the personnel in the EPA in general, and in the registration division of the Office of Pesticide Programs in particular, has been frozen and yet it would appear that at least 50–60 additional positions would be required in order to break the present registration log jam.

(3) Many of the reviewers in the Registration Division of the EPA lack any practical field experience and yet they are asked to evaluate the potential of fundamentally new, as well as of more conventional agents for practical applications by the farmer, rancher, or grower. Special training grant money must be made available so that EPA scientific reviewers can get field experience. Extra reviewers needed during the November to March peak load at Washington headquarters could then be used in the field during the summer growing season. This is of importance to the public and to industry because more experienced reviewers should lead to both better and faster reviews.

(4) The ever-increasing demands for environmental safety and toxicology require much more sophisticated monitoring and analytical procedures than before. To meet the challenge of today's environmental concerns, industrial and academic laboratories increasingly use equipment that is of a much higher level of sophistication, complexity and accuracy than that used within the EPA. The EPA has to base much of its analytical work on equipment which in turn is available in the FDA and USDA enforcement laboratories in the field because it is the FDA and USDA that have the subsequent responsibility for product monitoring—e.g. residue analysis. It is absurd to allow Government laboratories to conduct vital analytical work in 1975 using 1965 equipment when the rest of the scientific world is operating with 1975 state-of-the-art equipment. Money is required not only to upgrade this equipment, but especially to continuously upgrade the training of the analytical staff of the regulatory agencies.

I do not know the exact dollar price associated with these recommendations, but I suspect that it is low compared to the benefits that the public could expect if we wish to reach the important environmental goals that we have set for the near- and long-term future.

I believe the upgrading of the personnel is something the EPA would desire and it could come about quite quickly.

At present it seems unlikely that recommendations for such increased funding will come from the Government and it therefore behooves the Appropriation Committee to initiate such steps by requesting the EPA to come up with concrete proposals for improving the present state of affairs. Neither the public nor the regulatory agency seems to accept the fact that time is irreplaceable and the most expensive commodity that exists in research and development; currently this is the key bottleneck in the United States for research in the pesticide field.

None of the recommendations I have made thus far are unusual; they only represent quantitative modifications of past budgetary practices.

In conclusion however, I would like to make a fundamentally different recommendation that could represent the single most important incentive for increasing research on novel and more desirable pesticides; one that would constitute also an important precedent in the human pharmaceutical area regulated by the FDA. I am referring to the enormously escalating cost of toxicology work which now amounts to hundreds of thousands of dollars for any given compound. It is now recognized that 2 to 3 years of work is necessary in order to have adequate safeguards with respect to long-term effects especially in terms of carcinogenicity. As a result, very few products for minor uses are judged worthy of such expenditures and indeed the ultimate application usually has to be in the protection of a major crop such as corn, cotton or possibly soybeans. Hardly any work will be done for the protection of the lesser crops that are of critical importance to many farmers and growers.

Mr. TALCOTT. We operate like Stanford. We have certain rules to operate by.

Mr. DJERASSI. We are more flexible.

Mr. TALCOTT. You burn down a building?

Mr. DJERASSI. We only broke windows and we don't do that any more. I am pointing out that scientists more and more require toxicology for every new agent they are developing. The costs of these have escalated to the extent that most research people are only prepared to work in areas that have a major payoff. In the pesticide it means they would only be willing to work in areas of cotton, corn, and perhaps soybeans. There are many areas of research that are simply not being worked on anymore.

I am suggesting that you have to face the fact that almost all of this research is being done in industry. You have no mechanism to change that. I am suggesting there be instituted incentives such as Japan and Germany have instituted in their industrial situations that encourage industrial people to spend more of their own money and efforts in working in areas such as these.

In the second paragraph on page 6 I suggest you read this as an important aspect because I'm suggesting that the taxpayers share the risks in the following manner which could add more money to the agency rather than an outflow of money. I am suggesting that more long-term toxicology be funded temporarily by EPA and that such work be done in a totally independent outside laboratory. If the product eventually reaches the market stage and becomes a commercial entity, then the developer is obligated to pay a royalty to the EPA for the commercial life of the product.

This would mean that in a commercially successful case, the Government would not only be repaid the cost of the initial toxicology, but eventually would receive additional funds far above its initial expenditures.

Mr. TALCOTT. This is being done in Japan and Germany now?

Mr. DJERASSI. In a much more open way. On the other hand, if such a product does not reach commercialization because of failure during

the development stage or because registration was not granted, then the company would not be obligated to repay. This is because you don't do the toxicology unless you know there is a real need to do it. This is the key reason why an article which was reprinted in at least six books since 1964, this is the reason why I said in that that less work will be done in the area of birth control. This is the way it is in spite of lip service paid by the public, the press and the Government. The same thing is going to happen in the pesticide field. I am absolutely convinced unless we think of some incentives and you have to recognize that these are incentives, that less work will be done during the next decade.

There is very little chance that fundamental things will be developed particularly in those areas which are not the major crop protection areas and which nevertheless in some have an enormous impact on American agriculture.

Thank you very much.

Mr. TALCOTT. I am very impressed with your presentation. We have a little different situation on this side of the table than you do at Stanford. You said you don't know the exact dollar price associated with your recommendations but it would be low as compared with the long-range benefits to the public. That is true but we have to make our comparison of the price versus the available public funds now.

Mr. DJERASSI. I accept that completely. I just meant in this case, for instance, in the birth-control field I did exactly this; namely, to put numerical values on the price. I feel in this case here that I would like this committee to take the initiative of asking the EPA for that information.

I think the time has come for your committees to really—I read the record of the Whitten Committee last year and I was impressed with the questions and even more so with the question not asked. It seems to me you ought to ask the questions.

Mr. TALCOTT. There are questions we have to ask in the Appropriations Committee that would be more appropriate to be asked in the authorizing committees.

We just live in a different world. We have to relate the two, of course.

Mr. DJERASSI. Unless we do, I think we will live in an unhappy world.

Mr. TALCOTT. We already do. We are trying to make it happier.

Mr. DJERASSI. I don't think we are doing a very good job of this.

Mr. TALCOTT. In some ways.

Mr. DJERASSI. Mr. Talcott, tell me——

Mr. TALCOTT. Don't ask me. You are the witness; I am just trying to listen.

Mr. DJERASSI. I'm going to ask you a legislative question. You say part of the responsibility is not yours but with another committee. Where do people like myself find out who to speak to?

Mr. TALCOTT. Have you presented your proposal to EPA?

Mr. DJERASSI. Yes; they are in sympathy with it.

Mr. TALCOTT. Have you presented it to the Committee on Science and Technology?

Mr. DJERASSI. No; San Francisco is quite far away from Washington.

Mr. TALCOTT. I know, that is the trouble, it is too far away from everything.

I appreciate your testimony. I will circularize it to some agencies I think ought to be reading it. I think you ought to do the same. You know everybody on the committee or in the Congress is interested in trying to do these things. It is just a question of how; how fast and how much money we have to do it.

I am glad there are universities like Stanford and there are researchers and professors like you and that you are sharing your ideas with the public.

Mr. DJERASSI. Would you permit me just one example I would like to give to Mr. Talcott and both of you because it is relevant in that context? I am not just an ivory tower inhabitant. I have always worn at the same time an industrial hat and have taken my social function as a scientist seriously. In an area which I have found more important, population control, in which I have been very much involved for a number of years, when I wrote the detailed piece called "Birth Control" in 1984, which I will leave with you; it makes good evening reading.

I took it so seriously that I wrote the Secretary of HEW and the Surgeon General and the person at NIH in charge of population programs. It was perhaps pertinent to ask these busy people to meet with me. They thought I was a Cassandra, a pessimist who was a prophet of doom. I told them I would have the courage of putting this in black and white and I have in this and you ought to request it at every congressional hearing, I will have typical path maps of what it would cost to start a program and what the benefits and risks would be.

It had never been done in the birth control field amazingly enough. They didn't quite believe me. This was published 5 years ago. I said this is an experiment. This is in the public record and people can read it 10 years from now.

I predicted that unless things are done at EPA and Government policy you will see no changes by 1984. I picked that because I was talking about Orvillian methods as well as more pedestrian ones.

Five years have passed and I am not 100 percent correct; I am 120 percent correct. I am sorry for that. Also, I am giving you this example and I also talked with AID.

My paper on insect control is as dim and pessimistic as the birth control one. I think my credibility is fairly high.

I don't think I should spend my time here teaching this to everybody under the sun.

Mr. ROUSH. Thank you, Professor.

You might also consider, if you have not already done so, contacting Congressman George E. Brown of California. He has labored for many years on the House Committee on Science and Technology.

Mr. DJERASSI. I have done that. Even though he is not in my district I have supported him for reelection, too.

Mr. TALCOTT. How do you do that?

Mr. DJERASSI. I spend money.

Mr. ROUSH. Thank you.

Department of Housing and Urban Development

WITNESS

LEON N. WEINER, PRESIDENT, NATIONAL HOUSING CONFERENCE, INC.

Mr. Roush. Our next witness is Leon M. Weiner, president, National Housing Conference, Inc.

We would like to place your statement in the record. If you could possibly summarize your statement in approximately 5 minutes, the committee would be grateful to you.

[The statement follows:]

Mr. Chairman, I appreciate the opportunity to present NHC's views to the subcommittee on the important matter of program levels for the Department of Housing and Urban Development.

The National Housing Conference is a nonpartisan, broadly based national citizens' organization. It has worked for 44 years for housing and community development programs beneficial to the families and individuals of the towns, cities, and rural areas of this Nation.

My statement will be brief, but I am augmenting it by submitting, for the record, attachments documenting our recommendations for housing assistance and community development programs this year.

NHC shares the concerns of this subcommittee over the economic distress of our Nation and the effects it has had on our people. We are riding the crest of the deepest and worst recession since the Great Depression. We have been old repeatedly of late, that it has bottomed out, and that we can hope for an upward turn.

Yet, the unemployment rate in April moved up to 8.9 percent from 8.7 percent in March. The construction industry is faced with an unemployment rate of 19.3 percent with 832,000 construction workers out of work.

Construction workers have marched on Washington, mayors have clamored for additional help to keep their cities together, and tenants and homeowners are concerned about the rising costs of shelter and possible foreclosures.

On top of that we have estimates that more than 20 million Americans still live in substandard and overcrowded housing. These people are rarely heard. Rising housing costs are putting homeownership out of the reach of most middle income families who previously had not thought of themselves as disadvantaged. A study recently released by the Joint Economic Committee shows that the median cost of new homes in 1974 was $41,300—and that only an estimated 15 percent of the population could afford to buy and maintain a new home.

Conventional mortgage interest rates have climbed above 9 percent, and FHA and VA interest rates just went up from 8 to 8½ percent.

In the first 8 months of 1974, 1,160 construction firms with total liabilities of $270 million failed. Hundreds of thousands of workers in the affected trades became unemployed. In the past year, construction unemployment jumped from 9.1 percent to 19.3 percent in April 1975, and estimates of the rate of unemployment in housing construction run upwards of 40 percent. And housing starts are still below the 1-million level.

There are many disastrous results of the continuing depression in housing construction. Unemployment is increasing in housing and related industries, thereby further depressing the economy generally. The backlog of housing need is growing with adverse social consequences. Our capability to provide decent housing is rapidly diminishing. Clearly the need to provide additional subsidized housing is there; the demand is there; and the benefits to our people, our country, and our economy cannot be challenged. Housing has been the crucial industry which has led an economic recovery from every recession since World War II. Each new housing unit generates about 2 man-years of work. With additional housing construction, we can help restore the health of our economy, increase employment, and meet the urgent housing needs so long neglected.

Congress has shown its commitment to the housing and community development programs; but the action or inaction over the past 2½ years on behalf of this administration have only made a bad situation worse.

We have suffered through the moratorium imposed in January 1973; we have hung on to administration promises, and we are now being presented with the argument that what we need is not action or legislation or more money, but caution, and a sit-and-wait attitude. This, HUD argues, will restore consumer confidence and all will be well.

How can any reasoning person accept this palliative in light of the astounding record of broken promises we have lived with over the past 2½ years? It hardly engenders confidence. If the attention and rhetoric given to the destruction of our housing and community improvement programs had been channeled into more positive and constructive action we would not be facing the desperate cynicism, uncertainty, and frustration that we are addressing today.

It is outrageous that HUD should chastise us for asking for housing production and mandates on legislation when HUD's record has been one of first turning off productive housing programs for budgetary reasons while arguing that they were wasteful, and then promising us better programs which although could be less expensive, would probably be more expensive. Then in September 1973 HUD promised us 100,000 to 130,000 units under a new revised section 23 program for fiscal year 1974—and delivered none.

For fiscal year 1975 we were promised 300,000 units and we got regulations, and approvals for 144 units as of May 2, 1975. For fiscal year 1976 we are promised another 400,000 units, with a suggested total of 600,000 units for fiscal year 1975 and fiscal year 1976. We would like to believe it—but how much of a Pollyanna can even the best optimist be?

FHA is a shambles; and processing is a nightmare. HUD officials have testified repeatedly that HUD staff cannot handle more than one housing program at a time, and even that one is not being adequately handled.

We have been told that the new section 8 program is flexible, but so far it has been mostly elusive; we are told it is equitable, because it will serve all those in need—yet it may have to be restricted to the elderly poor. We are told that it is a substitute for the new construction programs which were put to rest, yet indications are that emphasis will be on the use of existing housing. We are told that it will do everything and more, at less cost and with fewer problems than earlier programs. So far it has cost less in subsidy dollars because there are virtually no new units to subsidize. So to argue for or against the program is to argue for or against a promise. But as stated above, we have reason to be suspicious of promises.

We want this program to work. We are urging our membership to give it an honest try. But we are also asking that HUD provide the housing and community assistance programs that can produce now.

HUD's unspent subsidy dollars have been saved at the expense of an inflated backlog of housing need which can only be provided now at enormously increased cost; and have created a pentup community development need in our localities, which when released, far outstripped the community development block grant funds made available. The point is that decent housing and community improvements are needed. By not meeting the needs the problems will not go away; the needy families will not disappear; and the cost of providing what Congress has agreed should be provided will not go down. We may be leaving the problems for a new administration, but the taxpayers will remain the same.

NHC cannot accept the administration's wait-and-see attitude. It is about time that the emperor stopped kidding us about his new clothes.

HUD has claimed that its budget request is aimed at implementing the provisions of the Housing and Community Development Act of 1974. We agree with that principle. Congress, the administration, NHC and many other public-interest groups worked very hard on that bill. The main difference between what HUD has asked for and what we are recommending is full funding and implementation of the entire bill as Congress conceived, deliberated, and passed it—not just the bits and pieces that HUD chooses to deal with.

Specifically we request the following:

1. Full funding and implementation of all the housing programs in the 1974 act—not just the section 8 housing assistance payments program. We hope that the subcommittee will support the use of at least 150 million of contract authority for traditional public housing programs. Local housing authorities across the country have approved applications, sites selected, and plans prepared which will enable them to get units under construction this calendar year. Particularly under the turnkey program, early completion of units can be accomplished.

We also recommend that the subcommittee support the use of all the contract authority available for section 236 rental housing ($75 million); section 202

housing for the elderly and handicapped ($700 million), to be used for permanent financing, not just construction financing as proposed by HUD; and the full use of the impounded 235 funds which are now in litigation. We concur with the National Association of Home Builders' request that the subcommittee renew the authority to use all of the section 235 contract authority which Congress has appropriated.

We strongly recommend that the section 312 loan program be extended and funded with a program level in fiscal year 1976 of $150 million to assist low-income homeowners who desire to rehabilitate their dwellings to code standards and help stabilize the neighborhoods in which they live. Also, it would assist these people to install energy saving devices such as insulation through an ongoing program.

We support the recommendations made by the National Association of Housing and Redevelopment Officials that the ceiling authority for public housing operations assistance be raised to $650 on July 1, 1975, rather than the administration proposal of $525 on July 1, 1975, and an additional $47 million on October 1, 1976; and that annual contributions levels of $40 million over each of the next 2 to 3 years be approved for modernization of older public housing. While the operating subsidy amounts may seem high, recent estimates have indicated that under HUD's proposed performance system, large LHA's would receive less than half the Federal operating payments authorized under the section 8 program, which is based on existing fair market rents for the local area.

2. NHC strongly urges the subcommittee to recommend the full authorized amount of $2.95 billion for community development block grants and $50 million for the urgent needs transition fund. The arguments for full funding are well documented in the record of HUD's testimony last month. It is hardly conceivable that HUD could request less than full funding in light of staggering deficiencies in meeting application requests—particularly for the depleted discretionaary funds from small cities in SMSA's which have been squeezed out this year. We are pleased that this subcommittee has recommended the use of the $54.6 million from last year's authorization for this purpose.

3. We also recommend full funding of the $150 million authorized for 701 comprehensive planning assistance in the 1974 act. This program is not interchangeable with the planning functions spelled out in the community development block grant program. Congress approved the 701 program to provide for a full-scale, ongoing, and comprehensive planning process and management capability, dealing with growth, land use, conservation, industrial, and utility development expansion, etc.—not just to prepare a plan for use of commodity development block grant funds.

4. We are disturbed that HUD has not included in its budget requests for: (a) interest differential grants for State development agencies using taxable bonds (section 802 of the 1974 act), especially since much of the early interest in the section 8 program is stemming from State agencies. They will need to have the option of raising funds through taxable bonds available to them; (b) nor for technical assistance and counselling which everyone agrees are necessary ingredients to successful low-income housing programs.

5. NHC also support the continued funding of the Housing Assistance Council which even HUD agrees has done an outstanding job in promoting the improvement of housing conditions in rural areas. We believe that $750,000 a year for an effective and successful program in this area is a wise investment of Federal dollars for the next 2 years.

6. Defaults and foreclosures must be avoided. Defaults and foreclosures on HUD-insured multifamily mortgages create serious hardships for the residents and the owners and huge losses for the Federal Government. Most of these foreclosures can be avoided by changes in HUD policies to meet the problems in a positive and constructive manner as described in the enclosed statement which we submitted at HUD hearings on this subject. We request that a copy of this statement be included in your record.

To carry out one of our recommendations, we urge that the HUD Appropriation Act include a mandate to HUD to use the authority granted in the Housing and Community Development Act of 1974 to pay limited operating subsidies on section 236 projects. These are limited to increases in costs of utilities and real estate taxes which the lower income tenants cannot afford. This would enable many section 236 projects to meet their mortgage obligations and avoid foreclosures.

Tenants in these subsidized projects have low or moderate incomes. Many of them are not able to pay the increased rents to meet increases in costs of

utilities and taxes. Their incomes have not increased to keep up with their higher costs of living. Some of the tenants are unemployed or underemployed. These conditions emphasize the need for these operating subsidies to supplement the present interest reduction subsidies on a section 236 project.

There are two separate sources of funds for the payment of these operating subsidies on section 236 projects to cover increases in the cost of utilities and local taxes:

First, the 1974 Housing Act provides for payments from a reserve fund which includes all rentals collected on section 236 projects in excess of the basic rental charges. This excess income results from some of the tenants paying more than is needed to operate the projects and pay their share of an effective 1 percent interest rate on the mortgage. We urge that you direct HUD to implement this provision in the 1974 law and utilize these excess charges to pay increases in the costs of utilities and local taxes which lower income tenants cannot afford to pay through increased rentals. There is an estimated $30 million of such excess charges now held by HUD.

Second, additional appropriations can be made to pay such operating subsidies to the extent that excess rental income is not sufficient to meet the need. We recommend an additional appropriation in the amount needed to supplement the funds now available for this purpose.

With an authorization for the use of the foregoing funds, HUD would contract to make additional assistance payments to project owners to cover increases in the cost of utilities and local property taxes. However, this is subject to the limitations in the 1974 Housing Act that the payments are not to exceed the amount required to maintain the basic rentals of any units at levels not in excess of 30 percent of the income of the tenants occupying such units—or 25 percent in the case of tenants who separately pay for their own utilities. This means that the tenants must first make an additional rental payment toward increased costs or utilities or taxes before any operating subsidy can be paid toward meeting such increases.

NHC would encourage the subcommittee to assure funding levels that will sustain adequate HUD staff to administer these programs. Moreover, NHC is generally in accord with other appropriations requests in the Administration's budget for fair housing and equal opportunity programs.

Also, in this time of critical need NHC would urge the subcommittee to give favorable consideration to the Emergency Housing Legislation H.R. 4485, which the Senate and House conferees have recently reported out.

Increasing expenditures to promote housing and community development would increase employment, reduce the cost of unemployment relief, and increase tax revenues, thus improving the budget picture. Moreover, the expenditures to stimulate housing and development construction will increase our capital assets and add to the real wealth of the Nation.

Thank you.

Mr. WEINER. Thank you very much, Mr. Chairman. I will try to do it even more briefly. The main thrust of our testimony deals with the fact that we have some differences between what HUD has asked for and what we are recommending. That goes to the heart of the question of full funding and implementation of the entire program as the Congress originally conceived it, deliberated it and passed it and not just small selective bits and pieces HUD has selected to deal with in its recommendations.

We are asking, for example, that the subcommittee review the authority to use all the section 235 contract authority which Congress has appropriated.

We strongly recommend that the section 312 loan program be extended and funded with a program level in fiscal year 1976 of $150 million to assist low-income homeowners who desire to rehabilitate their dwellings to code standards and help stabilize the neighborhoods in which they live. Also, it would assist these people to install energy-saving devices such as insulation through an ongoing program.

We support the recommendations made by the National Association

of Housing and Redevelopment Officials that the ceiling authority for public housing operating assistance be raised to $650 on July 1, 1975, rather than the administration proposal of $525 on July 1, 1975, and an additional $47 million on October 1, 1976; and that annual contributions levels of $40 million over each of the next 2 to 3 years be approved for modernization of older public housing. While the operating subsidy amounts may seem high, recent estimates have indicated that under HUD's proposed performance system, large LHA's would receive less than half the Federal operating payments authorized under the section 8 program, which is based on existing fair market rents for the local area.

NHC strongly urges the subcommittee to recommend the full authorized amount of $2.95 billion for community development block grants and $50 million for the urgent needs transition fund. The arguments for full funding are well documented in the record of HUD's testimony last month. It is hardly conceivable that HUD could request less than full funding in light of staggering deficiencies in meeting application requests—particularly for the depleted discretionary funds from small cities in SMSA's which have been squeezed out this year. We are pleased that this subcommittee has recommended the use of the $54.6 million from last year's authorization for this purpose.

We also recommend full funding of the $150 million authorized for 701 comprehensive planning assistance in the 1974 act. This program is not interchangeable with the planning functions spelled out in the community development block grant program. Congress approved the 701 program to provide for a full-scale, ongoing, and comprehensive planning process and management capability, dealing with growth, land use conservation, industrial, and utility development expansion, etc.—not just to prepare a plan for use of community development bloc grant funds.

We are disturbed that HUD has not included in its budget requests for: (a) interest differential grants for State development agencies using taxable bonds (section 802 of the 1974 act), especially since much of the early interest in the section 8 program is stemming from State agencies; they will need to have the option of raising funds through taxable bonds available to them; (b) nor for technical assistance and counseling which everyone agrees are necessary ingredients to successful low-income housing programs, if we are indeed attempting to decentralize the Federal level to the State levels. This is a very, very important part of the program of giving these differential grants if we are going to get that kind of thing accomplished.

NHC also support the continued funding of the Housing Assistance Council which even HUD agrees has done an outstanding job in promoting the improvement of housing conditions in rural areas. We believe that $750,000 a year for an effective and successful program in this area is a wise investment of Federal dollars for the next 2 years.

6. Defaults and foreclosures must be avoided. Defaults and foreclosures on HUD-insured multifamily mortages create serious hardships for the residents and the owners and huge losses for the Federal Government. Most of these foreclosures can be avoided by changes in HUD policies to meet the problems in a positive and constructive manner

as described in the enclosed statement which we submitted at HUD hearings on this subject. We request that a copy of this statement be included in your record.

To carry out one of our recommendations, we urge that the HUD Appropriation Act include a mandate to HUD to use the authority granted in the Housing and Community Development Act of 1974 to pay limited operating subsidies on section 236 projects. These are limited to increases in costs of utilities and real estate taxes which the lower income tenants cannot afford. This would enable many section 236 projects to meet their mortgage obligations and avoid foreclosures.

Tenants in these subsidized projects have low or moderate incomes. Many of them are not able to pay the increased rents to meet increases in costs of utilities and taxes. Their incomes have not increased to keep up with their higher costs of living. Some of the tenants are unemployed or underemployed. These conditions emphasize the need for these operating subsidies to supplement the present interest reduction subsidies on a section 236 project.

There are two separate sources of funds for the payment of these operating subsidies on section 236 projects to cover increases in the cost of utilities and local taxes:

First, the 1974 Housing Act provides for payments from a reserve fund which includes all rentals collected on section 236 projects in excess of the basic rental charges. This excess income results from some of the tenants paying more than is needed to operate the projects and pay their share of an effective 1-percent interest rate on the mortgage. We urge that you direct HUD to implement this provision in the 1974 law and utilize these excess charges to pay increases in the costs of utilities and local taxes which lower income tenants cannot afford to pay through increased rentals. There is an estimated $30 million of such excess charges now held by HUD.

Second, additional appropriations can be made to pay such operating subsidies to the extent that excess rental income is not sufficient to meet the need. We recommend an additional appropriation in the amount needed to supplement the funds now available for this purpose.

With an authorization for the use of the foregoing funds, HUD would contract to make additional assistance payments to project owners to cover increases in the cost of utilities and local property taxes. However, this is subject to the limitations in the 1974 Housing Act that the payments are not to exceed the amount required to maintain the basic rentals of any units at levels not in excess of 30 percent of the income of the tenants occupying such units—or 25 percent in the case of tenants who separately pay for their own utilities. This means that the tenants must first make an additional rental payment toward increased costs or utilities or taxes before any operating subsidy can be paid toward meeting such increases.

Very briefly, we are trying to say that HUD has not produced the results, especially for those of low and moderate income. The Department of HUD has been very seriously undermanned and the requests for HUD staff are necessary even if they expect to develop the section 8 program which they maintain is the only effective program that is going to work.

We differ with that and we believe until it is demonstrated that it can work we need the implementation of the other programs. If indeed

section 8 proves to be better, there is sufficient time to phase out the previous programs.

I have been speaking throughout the country on making section 8 work. I am one of the few optimists who exist in the general housing group in the country that has been saying that we need section 8 and we need to make it work. My optimism is finding great lack of support in the communities that I go to and speak on the subject.

I must say from personal experience, because I happen to be a builder and developer as well as the head of this public interest group, that I could certainly give this committee the detailed information of the kinds of problems of getting a single section 8 project underway including the old section 23.

NHC would encourage the subcommittee to assure funding levels that will sustain adequate HUD staff to administer these programs. Moreover, NHC is generally in accord with other appropriations requests in the administration's budget for fair housing and equal opportunity programs.

Also, in this time of critical need NHC would urge the subcommittee to give favorable consideration to the emergency housing legislation, H.R. 4485, which the Senate and House conferees have recently reported out.

Mr. TALCOTT. We have not had the House-Senate conference yet.

Mr. WEINER. You have not had the report back to the individuals but I think it came out Monday night, the authorization. So that I would certainly ask that you look at that one very carefully.

Increasing expenditures to promote housing and community development would increase employment, reduce the cost of unemployment relief, and increase tax revenues, thus improving the budget picture. Moreover, the expenditures to stimulate housing and development construction will increase our capital assets and add to the real wealth of the Nation.

Thank you.

I won't go into the depressed state of the housing industry as such because you have heard so much about that. But I think the people at HUD have closed their eyes to the real status. In February they testified that we didn't need this activity in the emergency bill by saying there was going to be a massive turnaround because the thrift institutions had a new flow of savings. This has not taken place.

There is no indication in the last 3 months of any severe change in the completely depressed condition we are in in this country today including low, moderate, middle, upper middle, and expensive housing, that we are going to reach a level that is going to be much above 1 million units for the entire year.

I think there is a tendency to put our priorities somewhat out of kilter.

I think this committee has a very grave responsibility of sorting out how we spend our money. I have listened to Congressman Talcott speak about the priorities you have to look at. I think the pent-up demand for housing, particularly our community which cannot by its very income pay the cost of even rental, let alone the cost of homeownership, is the state that we have to address ourselves to. I think we have the programs, including section 8, by the way because I

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certainly feel that it is another tool in the arsenal of doing the kind of job we have to do.

I regret that the approach has been that none of the others work. If we find a better program and find better methods of doing it, I am all for changing. But in July of 1973 they declared a moratorium, and I will submit the figures to the committee that are of real interest. From July 1974 through March 31, 1975, under the old section 23, there were actually contracted only 5,830 units.

When you look from September 1, 1973, to July 1, 1974, there were zero units placed under contract. This goes back to the September date when Secretary Lynn and President Nixon talked about implementing 150,000 new units under section 23. Under section 8 which was just recently approved in August, there are obviously zero units under contract and there are only 114 applications received.

When you look at the enormity of the need and demand, the fact that we had reached a level in this country of almost a half million units, far below what we said was needed in housing for low and moderate income families particularly, you must say this is not a record of performance.

Mr. TALCOTT. No; it is not but if you could sell one of your houses for half the price you are charging, it would turn it around.

Mr. WEINER. I would not want to sell it for half the price because I'm not sure that provides the answer to a family looking for the capital investment. I think our problems lie in the gap between people's incomes and the cost of shelter.

I am sure you are aware of that.

Mr. TALCOTT. That is what I am trying to talk about. The cost of housing is too high. People cannot afford it anymore. It is somebody's fault. It is not the fault of the person who wants to live in the house. It is the financier, the developer and organized labor. That is why you have a house that is too expensive.

Mr. WEINER. I respectfully submit that that is an oversimplistic response.

Mr. TALCOTT. You can go into more details.

Mr. WEINER. I would be glad to, but I must submit again in all due respect that that is a simplistic solution not really based on fact, but simply on the method of trying to place the burden on the cost of the shelter.

Mr. TALCOTT. It is more simplistic to say the Federal Government has to house everybody.

Mr. WEINER. Nobody has said that, nor do I believe that the Federal Government ought to intervene in the industry. I think what is needed is the support for the consumer and the notion that that consumer is able to close the gap.

We all know that housing poverty and other poverty are not the same. Housing poverty requires higher incomes than simply bread and butter.

Mr. TALCOTT. Have you built some of these 235 units?

Mr. WEINER. Yes, sir.

Mr. TALCOTT. Did you ever lose a dime on any of them?

Mr. WEINER. Yes, sir.

Mr. TALCOTT. You did?

Mr. WEINER. Yes; I did.

Mr. TALCOTT. I would like to have the details.

Mr. WEINER. I would be glad to send it to you because I must tell you that the increases in the cost of construction as a result of inflationary practices and as a result of governmental action requiring upgrading during the process of our developing that construction and as a result of the Federal Reserve Board action in increasing the interest rate has caused us to lose money on a number of 235 units.

Mr. ROUSH. Thank you, Mr. Weiner, we appreciate your appearance before the committee.

EPA PESTICIDE CONTROL

WITNESSES

RICHARD L. ELDREDGE, EXECUTIVE DIRECTOR, NATIONAL PEST CONTROL ASSOCIATION, INC.

DR. PHILLIP J. SPEARS, SENIOR DIRECTOR FOR RESEARCH

Mr. ROUSCH. Our next witness is Richard L. Eldridge, executive director, National Pest Control Association, Inc.

Mr. ELDREDGE. I am accompanied by Dr. Phillip Spears, our senior director for research.

Mr. ROUSH. Thank you.

If you could proceed in the same manner as I have requested of other witnesses we will appreciate it.

Your complete testimony will be made a part of the record.

[The statement follows:]

TESTIMONY

NATIONAL PEST CONTROL ASSOCIATION, inc.
8150 Leesburg Pike • Suite 1100
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RICHARD L. ELDREDGE, CAE
EXECUTIVE DIRECTOR
NATIONAL PEST CONTROL ASSOCIATION, INC.

PRESENTED BEFORE THE HOUSE APPROPRIATIONS COMMITTEE
SUBCOMMITTEE ON HUD AND INDEPENDENT AGENCIES

May 15, 1975

Mr. Chairman and members of the Committee, my name is Richard L. Eldredge. I am Executive Director of the National Pest Control Association, a non-profit, voluntary trade organization. We represent what is commonly known as the structural pest control industry. It is distinct from agricultural pest control as our members protect food, fiber and their by-products once they have been harvested and processed and are stored in warehouses, commercial establishments and in homes. In addition, our 2500 member companies and the other 4000 companies in our industry, which among them employ over 40,000 people, are directly involved in pest control as it affects the health of the nation. Our industry is involved to a great degree in the protection of property from termites and other destructive pests. It is estimated that the annual damage caused by the pests controlled by our industry is approximately $4.5 billion. There is no way of estimating what the damage would be either in terms of property loss or health implications if pests controlled by us were allowed to proliferate unfettered.

We appear before you today with regard to the appropriation for the Environmental Protection Agency. We do not feel qualified to comment on the overall Agency budget and will confine our remarks to the proposed appropriation for the area of pesticides as related to the Federal Insecticide, Fungicide and Rodenticide Act of 1947 as amended by the Federal Environmental Pesticide Control Act of 1972, PL 92-516. This budget is found on pages P1 through P22 of the Agency's appropriation justification.

Our basic contention is that the Agency as an entirety has a punitive mentality. "Millions for defense and not one cent for tribute", can be paraphrased and state our summary position of the EPA approach: "Millions for punishment and legalities, and not one cent for the encouragement of those regulated". It appears that it is the philosophy of the Agency from the Administrator through the Office of the General Counsel and the Office of Enforcement that those regulated under the laws referenced above are basically lawbreakers and all possible measures must be taken to insure that the Agency has the weapons needed to keep registrants of pesticide products and users of the same in check lest their "inherent irresponsibility blight the land with the perils of pesticides". It is unfortunate that it is not

until one gets to the operating levels of EPA, having left the Olympian heights of the policy-making level, that there appears to be a sense of perspective that although the Agency's main task (with which we agree) is to protect the environment, it is to do so having evaluated the risk/benefit ratios of its actions as balanced against the overall needs of the country. The Office of Pesticides Programs, most notably the Registration Division and the Operations Division have shown natural inclinations toward the risk/benefit balance approach, however in many instances the regulations developed at those levels become enforcement weapons once passed into the hands of the Office of General Counsel and the Office of Enforcement. The regulatory history of the amended FIFRA since it promulgation on October 21, 1972 is replete with reasonable original drafts of regulations being rejected at the policy-making levels of EPA for being "too lax" or not taking advantage of what the Agency is fond of calling "its abundantly clear" authority to enforce.

We are prepared to cite numerous examples of punitive excesses on the part of the Agency in support of our recommendation to this Committee. Specifically, we recommend that the Agency budget for Pesticides be a directed budget as follows:

1) That it be stipulated that the Agency may expend no more than $2 Million on enforcement in FY 1976.
2) The residual of the $3.5 Million ($1.5) be shifted to the line budget item for abatement and control.
3) That the resulting $31 + Million budget for abatement and control have specific directions:

    a) the reallocated $1.5 be added to the Operations Division's budget to be expended in FY 1976 for affirmative action program development.
    b) these affirmative action programs are to emphasize education and training programs for both private and commercial pesticide applicators. These same programs should be carried out under the auspices of the Operations Division in cooperation with the states which must bear the burdens of this law without promise of adequate Federal assistance up to this point.
    c) that the funds requested to register and re-register the 40,000 + pesticides and pesticide products for which the Agency is responsible be appropriated. The Registration Division is woefully shorthanded to undertake the awesome task which lies before it.

The basic rationales for these recommendations are the following:

1) In order for the amended FIFRA to be effective, all pesticides must be classified and they and their uses registered or reregistered by no later than October 21, 1976. Time is running out and the Agency seems no closer to its target than it was two years ago in this matter of classification. The above proposal would assist the Agency in achieving its goals.
2) The simultaneous top objective of the amended FIFRA is the certification of private and commercial applicators for the use or supervision of the use of restricted use pesticides. It is our judgment that certification was never intended as a punitive device (i.e., if you can't pass the test we won't let you do business) but a means of protecting the environment. We feel the environment will be protected better in both the long and short run by providing massive assistance in preparation for certification and for the development of training programs for applicators who are not required to be certified (such as employees who work under the direct supervision of certified applicators) than by being prepared to haul "offenders" into court to levy fines or jail sentences AFTER damage may have been done. Affirmative action programs would do more to prevent misuse and harm to the environment than all the punishment in the world. Knowledge is power and will be more instrumental in protecting the environment than fines and jail sentences.
3) Curtailing the budget for enforcement will not curtail the Agency's ability to respond to environmental hazards. It will require the Agency to be more careful in its attempts at enforcement than it has been apparently in the last two years. In the Agency's own publication, "EPA Enforcement: Two Years of Progress", it is clear that the Agency acts too fast at times for on Page 44 of that document, we find 130 of the Agency's actions in 1973-74 were withdrawn, dismissed, no fines levied or prosecution declined. We are sure the Agency will join us in our desire to ensure that it expends its funds for enforcement judiciously (pun intended). (See Exhibit #1)

In addition to our specific recommendations as delineated above, we urge the Committee to direct the Agency to desist from the application of general budgetary expenditures for the development of punitive excesses in pesticide programs as will be defined subsequently.

SPECIFIC ISSUES

We would not be so bold as to make the assertions we have made and the recommendations we make if there were not specifics to support

our contentions. We will discuss these contentions generally in this testimony and will support them with exhibits where possible.

1) Our prime concern is the overall Agency philosophy as manifested in its actions. The head of the Agency is a lawyer. The dominant policy-making element of the Agency is the Office of the General Counsel, which is of course comprised of lawyers. Although, we have immense respect for the legal profession, we are gravely concerned over the implications of it as a dominant policy-making force in any other Agency than the Department of Justice. By definition, the legal profession is composed of no middle ground. All decisions are of the "either/or" variety. Either a party is innocent or he is guilty. In matters of basic jurisprudence this is appropriate. However, when it is the sole foundation upon which Agency policy judgments are apparently made, this is a different matter.

   In most Agencies with which I am familiar, the operating divisions formulate policy which is then reviewed by the Office of General Counsel which comments on its legality.

   My experience with the Environmental Protection Agency has been entirely different. In many instances (for example the Pesticide Accident Surveillance System, now benignly known as the Pesticide Evaluation Review System) the Office of General Counsel of the Office of Enforcement (as the two have been separated) advises an operational division that it needs a certain regulation or a certain feature built into a regulation in order to give it (OGC or OE) the authority it needs to do various things of an arcane nature.

   Innumerable pieces of correspondence have gone unanswered, because the Office of General Counsel would not "sign-off" on a reply. Congressional inquiries on operational questions are answered (in form fashion) by either the OGC or the OE in many instances instead of the operational division in point.

   I have personally sat through numerous meetings with representatives of the Agency particularly with regard to certification in which representatives of OGC insisted upon attendance. Their role in every instance was to recommend measures which tighten the Agency's ability to punish "if needed".

   It is unfortunate that the combined result of the above phenomena on the part of those to be regulated at all levels of regulation incorporated in the amended FIFRA is an atmosphere

of intimidated suspicion as opposed to one of cooperation. In our opinion, the Agency's self-adopted adversary posture precipitates this.

It is with this in mind that we recommend more funds for affirmative action programs and less for punishment. The history of the United States is dotted with examples of benevolence on the part of the nation as regards treatment of defeated adversaries. We feel this same attitude should be applied in the interface between the regulators and those regulated.

2) EPA insists on the need for an accident reporting system as alluded to in the previous point. We see the development of a costly system which will develop data already available from other sources such as the National Poison Control Center Clearing House of the Public Health Service and from the data bank of the Consumer Product Safety Commission.

3) In the enforcement area, EPA has taken and continues to advocate a hard line instead of a reasonable one as mandated by Congress in hearings leading up to the amended FIFRA.

Specifically, the Agency has employed a highly arbitrary system of levying fines based upon company revenues as related to the magnitude of the threat to the environment. In this system there are no provisions made for the impact this arbitrary system has upon small businessmen. (See Exhibit 2)

Examples of the Agency's hard line approach are:

a) the pest control company in New England which also conducts a modest business in the sale of pesticides to the public. Overall company revenues (upon which EPA bases its fines) were in excess of $½ Million. Sales of pesticides were $27 Thousand in the company's best year. EPA took samples of a product from which the company enjoyed the staggering sales total of $700 in its best year. The samples showed the products to be adulterated (that is the concentrations in the container were different from their label specifications). The owner of the company allowed that he had violated the law and volunteered to remove the product in question from the market until quality control could be checked. EPA declined his gesture of cooperation and fined him $2400, due to company revenues overall with little environmental hazard present.

b) the formulator of pesticide products in the South who sent certain products across state lines. EPA seized samples. A check of the labels on the products showed a minor grammatical error in the labels on the products when compared to the master label. For this heinous crime, the company was fined $5000 due to its volume although there was no threat to the environment.

c) the distributor of pesticide products in the Great Lakes area who was conducting a training class for his customers using products labelled, "Sample Only-Not For Resale". After the class the products were put on a shelf for further training use. EPA visited the establishment and seized the products in point. The proprietor signed a receipt without reading it. EPA hauled him to court for selling a product labelled as a sample. He had not realized that this is what the receipt he signed said, although it was not the case. In our opinion, EPA duped him into incriminating himself as witnesses present at the training class have testified at how the products were used for demonstration. The case is still pending to our knowledge.

4) Despite the fact that the law provided for the use of materials with a potentially adverse impact upon the environment by those who have demonstrated their competence to use them, EPA has apparently no faith in the certification process. This is apparent by virtue of the Agency's systematic actions in the cancellation of products and related actions. First DDT (not for environmental causes we remind you but because of a legal technicality). Then an attempt to restrict the use of certain insecticides in places they do the most good. Then four rodenticides of little use but great importance and effectiveness when needed. Then Aldrin/Dieldrin. Now Chlordane and Heptachlor not to mention a long list of agricultural products.

We feel this again emphasizes the Agency's preference for legal remedies as opposed to the other mechanisms provided for in the law.

5) In the Regulations for the Approval of State Plans for the Certification of Pesticide Applicators published on March 12, 1975, the Agency gives the states much to do if their plans are to be accepted. At the same time, the states are given no incentives or assistance to do what is required and EPA still reserves most enforcement provisions for itself. In response numerous states are rebelling and declare they will

not perform according to EPA dictates. (Colorado and Utah are notable examples. They both say they will not require private applicator certification and defy EPA to deny them use of restricted use pesticides).

Despite the fact that certification is bascially an examination process as proposed in the law, the Agency has seen fit to lobby for numerous enforcement provisions in the Preamble to the regulations which has now been embraced by the states. The accident reporting system is advocated as is a general provision for surveillance and entry to premises. This further indicates the agency's basic philosophy.

We feel that the efforts the agency is now undertaking in the certification related efforts of the states as relate to enforcement, etc. can be better manifested by affirmative action programs in the form of grants to the states to help them implement this Federally mandated program. Without Federal assistance, many states will find it difficult to implement certification plans in such a way as to materially contribute to the protection of the environment and will have to be content that they have materially protected their relationship with EPA.

SUMMARY AND CONCLUSIONS

Although there are numerous issues we could have raised in this testimony in support of our recommendation that the Agency be given a directed budget in the implementation of the amended FIFRA, we hope we have made our point.

In summary, our position is that the Agency has set itself up as an adversary to those regulated. This, in our opinion is due to the personnel structure of the Agency since its inception. It is our opinion that the Agency as an adversary discourages voluntary, affirmative action on the part of those regulated.

The recommendations we have made would compel the Agency to shift its emphasis from one of punishment as a motivator to one of motivating voluntary compliance through positive incentives such as funding education and training programs at the Federal and State levels as well as through private channels.

It is our belief that the amended FIFRA is intended to protect the environment from unreasonable, adverse effects by registering pesticides and certifying applicators according to the degree of hazard. We feel that these objectives can never be met as long as the Agency relies on its power to punish rather than its obligation to motivate toward the objectives of the law.

We urge this Committee to consider our suggestions and to direct the Agency to modify its budget accordingly.

RESULTS AND STATUS OF PESTICIDES ENFORCEMENT
December 1972 to November 1974

Total Number of Actions initiated over 24-Months Period: -- 3,015

RESULTS AS OF December 1974:

1. Compliance obtained without initiating formal civil or criminal proceedings ---------- 2,211

2. Formal civil or criminal proceedings initiated-- 804

RESULTS OF CIVIL AND CRIMINAL PROCEEDINGS, as of December 1974:

ITEM	CIVIL CASES	CRIMINAL CASES	TOTAL
Number cases initiated----------	569	235	804
Criminal Fines obtained -- $ (Number of Cases)	-	$96,200 (114)	$ 96,200 (114)
Final Civil Penalties obtained -- (Number of Cases)	$410,317 (313)	- -	410,317 (313)
Proposed Civil Penalties awaiting final approval (214 Cases)------	$661,873	-	661,873
Total Fines/Penalties obtained or pending final approval....	$1,072,190	$96,200	$1,168,390
Cases dismissed----------	23	9	32
Zero Penalty/Fine, or not reported--	6	6	12
Action withdrawn or Prosecution declined----------	13	73	86
Cases pending as of December 1974---	214	33	247

Exhibit 1

[1]Extracted from "EPA Enforcement: Two Years of Progress", United States Environmental Protection Agency, Washington, D. C.

SECTION II: CIVIL PENALTY ASSESSMENT SCHEDULE

GRAVITY OF VIOLATION — SIZE OF BUSINESS

USE VIOLATIONS

[28] 1. Use or Disposal of a Pesticide in a Manner Inconsistent with its Labeling

	I	II	III	IV	V
A. Adverse Effects Highly Probable	500	1250	2750	4250	5000
B. Adverse Effects Unknown	250	700	1540	2370	2700
C. Adverse Effects Not Probable	120	300	660	1020	1200

[29] 2. Use or Disposal Contrary to the Provisions of an Experimental Use Permit

	I	II	III	IV	V
A. Knowledge (of the experimental use permit)	500	1250	2750	4250	5000
B. No knowledge (of the experimental use permit)	100	250	550	850	1000
C. Shipments made after the expiration of experimental use permit	5000	5000	5000	5000	5000

(Action may always be taken against the holder of the experimental use permit.)

Exhibit 2

[2]Roman numerals corelate to company revenues. Capital letters relate to the effects on environment.

Pesticides

	1975	1976	Increase or Decrease
Budget Authority			
Abatement and Control.....	$19,521,900	$29,552,100	+$10,030,200
Enforcement.....	3,408,500	3,582,900	+174,400
Research and Development....	11,193,000	11,197,900	+4,900
Total.....	34,123,400	44,332,900	+10,209,500
End-of-Year Employment			
Abatement and Control.....	671	671	...
Enforcement.....	153	153	...
Research and Development....	148	148	...
Total.....	972	972	...

Abatement and Control

	1975	1976	Increase or Decrease
Budget Authority			
Registration and Tolerances.....	$7,654,200	$8,114,200	+$460,000
Monitoring.....	4,543,200	4,564,500	+21,300
Technical Assistance.....	7,324,500	16,873,400	+9,548,900
Total.....	19,521,900	29,552,100	+10,030,200
End-of-Year Employment			
Registration and Tolerances.....	407	407	...
Monitoring.....	80	80	...
Technical Assistance.....	184	184	...
Total.....	671	671	...

Enforcement

	1975	1976	Increase or Decrease
Budget Authority			
Pesticides enforcement...	$3,408,500	$3,582,900	+$174,400
Total.....	3,408,500	3,582,900	+174,400
End-of-Year Employment			
Pesticides enforcement	153	153	...
Total.....	153	153	...

Mr. ELDREDGE. Mr. Chairman, and members of the committee, my name is Richard L. Eldredge. I am executive director of the National Pest Control Association, a nonprofit organization representing 2,500 companies which control pests in and around structures for the purpose of protecting the health and property therein.

We have already submitted an expanded statement with accompanying exhibits. Understanding that the committee is in its last day of these hearings and desirous of completing its deliberations, we will abbreviate our formal remarks and respond to questions on them and upon our complete testimony.

BASIC RECOMMENDATIONS

We recommend that the appropriation for the operation of the pesticides branch of EPA be reviewed and that the agency be given a directed budget that deemphasizes enforcement and legal adversary activities and emphasizes affirmative action programs in the preparation of applicators required to be certified under the amended FIFRA. We also recommend that the budget for pesticides be directed to emphasize the registration and reregistration of the 40,000-plus pesticide products which is now already behind schedule in terms of the time needed for the job due to the agency's failure to classify pesticides into the "restricted" or "general" use categories as required by law.

In support of that I furnish you with a book, "EPA, Two Years of Progress." The Agency takes 400 pages in this document to make a very detailed list of all of its enforcement activities in the air, water, and pesticides area. It is unfortunate that the Agency has no affirmative action program for a program supported by the agency.

We recommend that the Agency be directed to provide assistance to the States for implementation of the law as required at that level.

RATIONALES

We feel the Agency relies on the strict punishment of those regulated as the primary mechanism for compliance with the law. In addition, the Agency seems to have little faith in the certification and registration processes as intended by Congress and has set about in an apparently systematic fashion to cancel the bulk of those pesticides we believe the law was intended to control through registration and certification. These procedures consume a great deal of the Agency's resources to little avail overall in the protection of the environment and to the definite detriment of the economy of the Nation in our opinion.

The amended FIFRA directed the Agency to classify pesticides into restricted and classified categories. Restricted categories were to be used by or under the direct supervision of certified applicators who had demonstrated their competence by an issue of examination.

In addition, they would have certain instructions on their labels which would tell the certified applicator or those working under their direct supervision how to apply these materials.

Since the law became promulgated in October 1972 the agency has canceled DDT, leaving the Nation now with no effective means of control for house mice, no effective means of control against rabid

bats and little controls against body lice or bedbugs. There are no means to control these pests which have a very, very great impact on public health. Also in 1972, adversary provisions were begun against aldrin and dieldrin, exempting the uses for our industry. Theoretically we should have no reason to gripe about that, but unfortunately the company that was going to produce the materials is not going to produce them any more. The Nation has approximately $5 million in termite damage and without these and two other products, chlordane and heptachlor, which are now under attack, the Nation would be left without termite pesticides.

Mr. ROUSH. How much is that?

Mr. ELDREDGE. Estimated at $5 million annually, more than fire and wind storms. I shall not proceed on that but the Agency seems discontent with the fact that there were provisions built into the law that would allegedly protect the environment from adverse effects if misapplied or misregistered.

Prior to the 1976 deadline the agency has systematically begun the removal of these products from the marketplace. Furthermore, we feel the Agency's enforcement policies are unduly harsh with regard to small businessmen and that it begins many legal actions of dubious merit, thereby causing undue hardships on the defendants and misuse of Agency funds.

A small formulator of pesticides in New England was offering to the public very, very innocuous roach-control agents. EPA inspected his establishment as provided for by the law.

The individual gave no resistance to being inspected and samples were taken. EPA analyzed them and it was found they were in the definition as provided in the law "adulterated." They advised the individual.

He offered to remove them from the market and improve his quality control procedures. But the Agency insisted on the adversary proceeding and fined him $2,400 even though his annual sales of the product were only $700. The formula which EPA uses for such activities is found in one of our exhibits to our complete testimony.

Due to the fact that the individual's entire company—which gets the bulk of its revenues from pest control, the actual control of pests—was in excess of half a million, the EPA formula applied and he was subsequently fined according to that formula.

We feel the law was never intended to do such things to small businessmen. If this was the only such abuse——

Mr. TALCOTT. Did he appeal?

Mr. ELDREDGE. We cannot appeal for him but we have assisted him He has not only appealed but—as a matter of fact I believe he is from the chairman's district, from Massachusetts—he has not only appealed but, to put it politely, he has made one of the biggest stinks you have ever heard.

Mr. TALCOTT. Has he been successful?

Mr. ELDREDGE. EPA has compromised to a $1,200 fine, but they insist that they draw the line here. This gentleman is coming to the authorization hearings and if we are questioned by the committee on this aspect of the Agency he will speak in his own behalf.

In summary, our point is that the Agency makes much, much, too much, in our judgment, of the enforcement process and legal adver-

sary proceedings. It is impossible for us to interpret the overall EPA budget, but we feel that many of the line items in the budget are highly euphemistic.

Enforcement, $53 million out of $700 odd million does not seem too excessive, but only the tip of the iceberg in this area shows it because the Office of General Counsel, I do not believe, is listed in this enforcement part of the overall agency budget, and it is a fact as we know it that the Office of General Counsel is intimately involved in many of these adversarial enforcement proceedings.

We feel this is an inappropriate use of agency funds. We feel the funds redirected into affirmative action programs to assist the States with the massive burden they have in certifying applicators and to complete this registration process which they must do by August 21 is mandatory. The follies of faith department. It would have been much better if we followed Dr. Djerassi because Dr. Djerassi put his finger on one central issue. The agency is more content to enforce, penalize, and exercise its legal prerogatives than it is to undertake the overall objectives of the Nation.

The agricultural production could be threatened by the demise of aldrin and dieldrin. The agricultural production could be further influenced by the cancellation of chlordane and heptochlor. My recollection is another one but that does not affect us directly—it has to do with fire ants.

We feel the agency was directed to do this by the Congress. We feel some service must be given to the concept of affirmative action.

We have two letters, one to the administrator of the agency and one to Mr. Kirk, in the Office of Enforcement asking about their long promised affirmative action programs, voluntary compliance programs. It is not unusual for us to get no response from the agency.

I am unaware of the percentage, but I would say perhaps the agency responds to 1 out of 20 letters that we send them. That completes our abbreviated testimony.

Mr. ROUSH. Mr. Talcott.

Mr. TALCOTT. I am sympathetic with what they are saying. I have no questions.

Mr. ROUSH. Thank you for your testimony.

Again the committee will give due attention to your complete testimony and the information it contains.

Mr. ELDREDGE. Thank you.

ENVIRONMENTAL PROTECTION AGENCY

WITNESSES

DR. N. BRUCE HANES, CHAIRMAN, CIVIL ENGINEERING TUFTS UNIVERSITY, ASSOCIATION OF ENVIRONMENTAL ENGINEERS PROFESSORS

LESLIE PIPES, PRESIDENT, ASSOCIATION OF ENVIRONMENTAL ENGINEERING PROFESSORS

Mr. ROUSH. Our next witness is Dr. N. Bruce Hanes, chairman Civil Engineering, Tufts University, Association of Environment Engineers Professors.

Mr. HANES. Mr. Chairman, I would like to introduce Leslie Pipes, president of the Association of Environmental Engineering Professors, on whose behalf I am appearing here today.

Mr. ROUSH. We will receive your testimony and place it in the record.

[The statement follows:]

53-270 O - 75 - 57

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY'S PROFESSIONAL TRAINING PROGRAM IN WATER POLLUTION CONTROL

A statement presented on behalf of the ASSOCIATION OF ENVIRONMENTAL ENGINEERING PROFESSORS to the SUB-COMMITTEE FOR HUD - INDEPENDENT AGENCIES OF THE COMMITTEE ON APPROPRIATIONS OF THE HOUSE OF REPRESENTATIVES on May 15, 1975.

INTRODUCTION

The purpose of this testimony is not to find fault with the past actions of the Federal Government, State Governments, private industry, the professional community or the general public. The purpose of this testimony is to make a positive recommendation with respect to Federal Support of Professional Manpower Training for Water Pollution Control under Section 104(g) (3) (A) and (B) of Public Law 92-500. Without such continuing support now, it can be predicted that the war on water pollution control will be prolonged and most probably lost.

I am N. Bruce Hanes, Professor and Chairman of the Department of Civil Engineering at Tufts University located in Medford, Massachusetts. I have worked as a professional concerned with Water Pollution problems for the past two decades. Since 1962 I served as Director of the Tufts University Graduate Program of Environmental Health Engineering. It is important to note that the Professional Training Grant Program made it possible for Tufts University to develop a graduate training program which included expanding its staff capabilities in this area from one to four full time professors as well as a sizable commitment in funds for facilities, equipment and operating supplies. The continuation of the operation of this program at its current level is dependent on support of graduate students by the Professional Training Grant Program. The case of Tufts University is not unique. I am appearing here today on behalf of the Association of Environmental Engineering Professors.

SUMMARY

The Federal Water Pollution Control Act (P.L. 92-500) charters a ten year program whose goal is to restore and maintain the biological integrity and chemical balance of our natural water systems. Unless professional manPower capable of achieving this goal continue to be trained at a rate of least that in fiscal years 1971 and 1972 there is a high probability that:

1. The goals of the 1972 Amendment to the Water Pollution Control Act will <u>not</u> be met;
2. There will be <u>inadequate</u> professional manpower available to meet the needs of federal, state and regional agencies and of the private sector;
3. Innovative research and development necessary to achieve least cost, technically effective pollution control objectives will be <u>curtailed</u>.

It must also be recognized that environmental engineers and scientists who solve the water pollution and drinking water problems represent the public segment of society and their efforts are directed to the protection rather than the utilization of resources. Hence public agencies have the responsibility of assuming a primary role in the education of these men and women. In spite of this responsibility and the current need for more professionally trained personnel, Federal support of the Water Pollution Control Training Program is now being phased out and will be terminated June 30, 1976. It is therefore respectively requested that Federal support for the United States Environmental Protection Agency's Professional Training Program in Water Pollution Control under Section 104(g)(3)(A) and (B) of Public Law 92-500 be increased from $1,200,000 to $4,700,000 in fiscal year 1976. It is further requested that the program be continued at this level, or preferably at an expanded level of funding, in the future rather being terminated as of fiscal year 1977.

HISTORY

The Professional Training Program in water pollution control was initiated by an appropriation of $700,000 in fiscal year 1962. Table I shows the funds appropriated, number of awards made and the trainees supported throughout the history of the training grant program.

It became apparent early in 1966 that the professional manpower force to wage the war on water pollution was inadequate and that Federal support of the training program must be increased. This point of view was expressed to Congress with psoitive results.

Exhibit 1, a communication from Senator Edward M. Kennedy, is an example of one such positive result. The manpower problem in 1966 is summarized in an article entitled "Manpower to Fight the War on Water Pollution" which appeared in the August 1967 issue of Water and Sewage Works (Exhibit 2). The Federal Government responded positively and a sustained period of increased federal support existed between the fiscal years of 1966 and 1972. (Table I). In fiscal year 1973, the support level for the Water Pollution Control Training Grant program decreased significantly, reflecting the decision by the Federal Government to phase out its support of this program. This decrease would have been even greater in fiscal year 1973, if Congress had not restored $3,000,000 to the entire training grant effort, including Air Pollution Control, of the United States Environmental Protection Agency.

The impact of the reduction of funding has been both immediate and dramatic on the total number of students being trained as well as new students starting programs in Water Pollution Control. Table II presents the results of surveys conducted by the Association of Environmental Engineering Professors, which includes over ninety-five percent of the schools with graduate programs in sanitary engineering.

TABLE I

FISCAL YEAR	APPROPRIATION DOLLARS	AWARDS	TRAINEES SUPPORTED
1962	$ 700,000	23	--
1963	1,100,000	35	83
1964	2,000,000	54	177
1965	2,000,000	57	291
1966	2,500,000	65	364
1967	2,910,000	71	391
1968	3,365,000	84	509
1969	3,300,000	79	633
1970	3,800,000	88	792
1971	4,565,000	91	944
1972	4,650,000 (1)	103	1243
1973	2,800,000 +1,800,000	87	1296
1974	2,770,000	73	845
1975	2,105,000 (3)	52	616
1976	1,200,000 (2) (4)	33 (2)	372 (2)
1977	None (2)	None(2)	None (2)

(1) $1,800,000 of 1972 fiscal year funds supplied in early fiscal year 1973

(2) Projected

(3) 29 Fellowship Awards Funded from total training appropriation

(4) 53 Fellowship Awards funded from total training appropriation.

TABLE II

GRADUATE STUDENT ENROLLMENT SURVEY

(105 Programs in 101 schools)

ENGINEERS TRAINING IN WATER POLLUTION CONTROL

YEAR	TOTAL GRADUATE STUDENTS	NEW M.S. STUDENTS
1971-72	2406	1271
1972-73	2424	1203
1973-74	2211	1108
1974-75	1635	722

The full implementation of Public Law 92-500 and the Safe Drinking Water Act of 1974 will not be possible if the current decline in the number of students being trained each year continues.

THE UNITED STATES WATER POLLUTION CONTROL EFFORT TODAY

A publication entitled "National Policy Issues-Water Pollution Control" was published in August 1974 by the Association of Environmental Engineering Professors. This document is made up of six papers which address the following policy issues:

1. National Water Quality Goals and Objectives;
2. Research and Water Pollution Control;
3. Educational Needs and Training Support Water Pollution Control;
4. Manpower Needs in Water Supply and Pollution Control;
5. Administration and Implementation of Pollution Control Policy;
6. Financing of Waste Water Facilities.

This document is entered as Exhibit 3. Briefly this publication defines what needs to be done and what resources will be required to meet these needs. It documents the current shortage of manpower with professional training as well as documenting the fact that the numbers of students with adequate professional trainees graduating each year is less than half the number of positions becoming available. If this trend is allowed to continue, the design of wastewater treatment facilities will be performed, in some cases, by engineers without adequate education. This will result in over-design and greatly increased costs for wastewater treatment facilities which may not provide an adequate level of performances. Furthermore, the properly designed increasingly complex Waste Water Treatment Plants required to comply with Public Law 92-500 will have to be operated by professionally trained engineers and scientists if they are to achieve the new effluent standards. In addition, engineers, planners and scientists are required to work on the development of water quality and effluent standards, the NPDES permit program as well as monitoring and enforcement. It is already apparent that the lack of an adequate number of well educated professionals in water pollution control has resulted in difficulty defining realistic standards, meeting deadlines and obtaining compliance.

If the enrollment trends shown in Table II are permitted to continue current conditions will deteriorate further.

EVALUATION OF THE EFFECTIVENESS OF THE PROFESSIONAL TRAINING PROGRAMS IN WATER POLLUTION CONTROL

A document entitled "An Evaluation of Environmental Engineering Education" is entered as Exhibit 4. This document, dated February 1975, was prepared for the Register Committee of the Association of Environmental Engineering Professors and American Academy of Environmental Engineers. It is noted in this document that for fiscal year 1976 the proposed level of support for this program is less in a real value than that available in 1963. The report questioned the advisability of reducing an effective program just before the largest demand will occur for manpower. The report noted that the Professional Training Grant program has matured and reached an efficiency level that has reduced the mean costs to the EPA per total student enrollment from $8,600 in 1968 to less than $2,000 in 1973. The improved cost benefit ratio of this program for Federal dollars invested is a result of better management as well as the assumption of a large portion of its cost by the Universities, States and the private sector of our society. For example, in the case of Tufts University, the contribution to the Professional Training Program by the University increased by 100.2% during the period between the 1968-69 and the 1975-76 academic years while the corresponding increase by the Training Grant Program was 6.2%. The large increase of the Universities contribution was possible only because the professional training grant support of students provided larger student numbers which justified an expansion of both staff and facilities by Tufts University. Conversely, if student numbers decrease, as they surely would with the elimination of the EPA Professional Training Grant Program, the University contribution would decrease until the critical number of students is reached. At that time the University would be forced to abandon its graduate program in water pollution control because it is no longer cost effective. The case of Tufts University is not unique but rather typical of the 100 or so schools, both private and state, that have received support from the EPA Professional Training Program in Water Pollution Control. I wish to emphasize again, that Public Law 92-500 and the Safe Drinking Water Act of 1974 are Federal Laws and that the Federal Government has the primary responsibility for their implementation as well as the education of environmental engineers and scientists. Today, EPA is providing only 30.2% of the necessary funds at Tufts University of which most are used for direct student support.

Exhibit 4 concludes "It appears that the decision to phase out training support is premature and governmental agencies will suffer an even more severe shortage of qualified manpower within the next two to five years if the phase-out is complete."

CONCLUSION

The national need for the continuation of the Training Program in Water Pollution Control has been presented. This need has been recognized by the professional workers in the field and has been documented in Exhibits 1 through 4. In addition two States (California and Wisconsin)have recognized the need and the appropriate State Boards have passed resolutions in support of the EPA Training Grant Programs.

Exhibits 5 and 6. A similar resolution is currently being considered by the New England Interstate Water Pollution Control Commission, of which the six New England States and New York are members. This resolution will be acted on in June 1975. In the past, Congress has recognized the need for adequately trained manpower and has provided the support that has made possible the present manpower force. If Congress had not acted in the past the Water Pollution Control Program in the United States would still be in the dark ages. Again, it is up to Congress to assure adequate manpower to implement P.L. 92-500 and the Safe Drinking Water Act of 1974.

Mr. ROUSH. We would ask if you could summarize your testimony, Dr. Hanes.

Mr. HANES. I will try to summarize what was already a summary.

Mr. ROUSH. Sometimes the summaries can be longer than the testimony, as we have found by experience, so work at it.

Mr. HANES. Thank you, sir. The purpose of the testimony is to make a positive recommendation with respect to Federal support of professional manpower training under water pollution control under section 104(g) (3) (A) and (B) of Public Law 92–500. Without such continuing support now, it can be predicted that the war on water pollution control will be prolonged and most probably lost.

Perhaps I can answer Mr. Talcott's question about why students do not just go on for professional training since there are jobs in this area. The answer is that after a 4-year degree the engineer can go out and take a job, and he then goes into this field, and he is used for the designing of waste water treatment plants and for the operation of these plants. He is doing this in an undertrained position.

The net result is that plants are being improperly designed. This is really the crux of our concern.

Mr. TALCOTT. So you are hiring incompetent, untrained people.

Mr. HANES. I am not, but some people are, in my estimation.

To document this, if one takes a look at table II on page 4 of my testimony, this is a survey that was made of over 95 percent of the schools that are producing trained personnel. We can see that over the last 2 years it is going to decline in both total graduate students and new MS students offering programs. In this last year it has been very drastic with 26 percent less students in the programs and a 35-percent decrease in students entering the programs. If one then turns back to page 3, table 1, it can be noted that this decrease is following quite closely the change in funding that has occurred over the last few years with respect to the professional training program and water pollution control.

Mr. TALCOTT. We may be leveling off in our need for trained people. Are we approaching the apex of environmental effort?

Mr. HANES. This is something that we, being in the field, ask ourselves these questions, too, because it is very important that we are doing the right thing because as professionals if this job does not get done we are the ones who wind up with mud on our face. Here is a booklet that I have entered as exhibit 3 to the testimony here.

Mr. ROUSH. We will receive those for the committee's files.

Mr. HANES. This was prepared by the Association of Environmental Engineering Professors. It is made up of six papers which address the problems and policies with respect to this effort. One of these papers are the educational needs and training support and the other one related is manpower needs in water supply and pollution control which is on page 20.

From the best available information the projection made here is that indeed there is a continuing need and that this need goes well into the future and that we have not reached the point at which people are no longer finding jobs.

From a personal point of view I can say that all of our students who have completed their training, even in Massachusetts and Boston, which is one of our most depressed areas in the country, have all found jobs and they have found jobs in Boston if they wanted to stay there.

That lack of need has not occurred yet. Further, in exhibits 5 and 6

which are the last two exhibits, one was our resolutions that have been passed by the respective boards.

Exhibit 5 is the State of California and exhibit 6 is Wisconsin which is supporting the EPA training grant program. As part of the statement, one of the points that they made is that in the case of California, item 3, trained personnel will continue to be needed by the State water resources control board and other Federal, State, and local agencies concerned with environmental protection and enhancement.

Now these are the only two that have been passed to date but yesterday you heard Al Peloquin, who is the executive secretary of the New England Interstate Water Pollution Control Commission of which the six New England States are members, as well as New York.

They are now considering a similar resolution which will be acted on in June. In his testimony yesterday Mr. Peloquin also called your attention to the need for adequately trained professional people. I was very pleased to learn also that Wes Gilbertson, deputy secretary of the Pennsylvania Department of Environmental Resources, also testified yesterday pointing out the need for professionally trained people.

I don't feel from all the evidence I have seen that we have reached that point that we don't need professionally trained people. I think it is probably just opposite with the implementation of 92–500 and then with the Safe Drinking Water Act which was passed last December, which puts a whole new manpower need superimposed over the last few years.

Mr. TALCOTT. I think we need many more and better trained people in this field.

Mr. HANES. This is why I am here today, sir.

We have made several points in our discussion. There are a couple of other things I would like to point out. It appears at the top of page 2 of the testimony. I would like to read this because it has two items I think are important.

It must also be recognized that environmental engineers and scientists who solve the water pollution and drinking water problems represent the public segment of society and their efforts are directed to the protection rather than the utilization of resources. Hence public agencies have the responsibility of assuming a primary role in the education of these men and women. In spite of this responsibility and the current need for more professionally trained personnel, Federal support of the water pollution control training program is now being phased out and will be terminated June 30, 1976. It is therefore respectfully requested that Federal support for the U.S. Environmental Protection Agency's professional training program in water pollution control under section 104(g)(3) (A) and (B) of Public Law 92–500 be increased from $1,200,000 to $4,700,000 in fiscal year 1976. It is further requested that the program be continued at this level, or preferably at an expanded level of funding, in the future rather than being terminated as of fiscal year 1977.

The $4.7 million came from the leveling of funding over the years 1971, 1972, and 1973 at which time there was a production of somewhere over 1,000 trainees in this program.

It is felt that when you match this up with the projected needs that this would give us a chance of solving some of these problems properly that we must solve in the very near future.

Now there is one other point that I would like to make. That is that there is a question that is being raised about why doesn't somebody else pay for the education of the students.

This training program has been one that has been very effective. In 1968, according to information that is found in evaluation of environmental engineering education, which is exhibit 4, it was pointed out that the cost to EPA per student enrollment was about $8,600. In 1973 this had dropped to $2,000. Now this decrease in cost has come about by the assumption by the States and the private universities and industry of an increasing portion of the cost of training students. My university, Tufts, for example, has increased its budget 100.2 percent, from the 1968–69 academic year to the 1975–76 academic year. The reason we can do that is because the funds that come in and support students make a larger class to work with which makes it cost effective for the university and as a result we have increased our staffing from one to four professors and these are paid for by the university and our commitment to equipment and supplies for the operation of the program.

If it goes the other way and you start losing students out of the program, then it becomes less cost effective and the university will have to put their funds into other programs which are carrying their own weight.

Now the total part of our budget which the EPA training grant program makes up is 30 percent of the budget. Most of that goes to the students. Eighty percent of that is directly for tuition and stipends and the other 3 percent for overhead and the balance goes into operating supplies and one secretary.

Mr. TALCOTT. You cannot find students who will pay their own tuition?

Mr. HANES. Yes; we do. We have a total of 30 students in the program. This particular grant is supporting roughly one-third of the students, nine students this year.

Other students are being supported by private industry. Other students are supported by the university and some students are paying their own way if they can afford it.

What we are doing is attracting the good students into the program who cannot afford it. They graduate with debts of $5,000 or $6,000.

Mr. TALCOTT. Is that wrong?

Mr. HANES. No; but if they have the choice of working another 4 or 5 years and going another $4,000 or $5,000 into debt, then they go to work and we have another undertrained person working in the field.

Mr. ROUSH. Thank you, Doctor.

NASA APPROPRIATIONS

WITNESSES

JAMES J. HARFORD, EXECUTIVE SECRETARY, AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS
DR. JERRY GREY, ADMINISTRATOR OF PUBLIC POLICY, AIAA

Mr. TRAXLER. Mr. Harford and Mr. Grey.

Mr. HARFORD. Congressman Traxler, Congressman Talcott, you have my statement for the record.

I want to make a point or two that spring from material that I read in this book just last night. This is the transcript of the earlier hearing that you had with Dr. Fletcher and Dr. Low on the NASA appropriation for this year.

Specifically, a section where you fellows were both very concerned about the unemployment problem, as we all are, and the question was raised as to what, for instance, NASA might do with about $200 million in terms of hard jobs today.

That strikes a big note.

I represent the American Institute of Aeronautics and Astronautics. The AIAA has 25,000 members. We use to have 39,000. We are here for the third year in a row and we are looking at a budget that is down from the previous years. It is $2.8 billion in inflated dollars.

Having read that material in the transcript about unemployment I thought I would speak to a couple of points that perhaps you are not aware of. We think a lot of people could be put to work and put to work very effectively and usefully and very, very quickly, doing programs which this country needs and needs badly.

For instance, perhaps you don't realize that there is not a single major civil aviation development program underway in this country today. It is kind of a shocker, but when one realizes that 93 percent of the world's airplanes, that are flying now commercially are U.S. airplanes and we do not have a single major development program underway.

You are responsible for appropriating money for NASA and I would like to have you get that message.

Mr. TALCOTT. Whose responsibility is it to start these development programs—Congress?

Mr. HARFORD. I think it is the Congress responsibility to authorize them.

Mr. TALCOTT. To authorize programs for civil aviation?

Mr. HARFORD. Specifically in my opinion NASA ought to be given responsibility for two programs, short haul and replacements for 707 and DC–8. In the short haul the Russians have YAK–40 and 42, the French have the Mystere 30/50. We have nothing yet. NASA ought to get a start to develop one of those systems very quickly.

The TRAXLER. What are the short haul planes now being utilized by the American domestic lines, those little two-engine flat cigars that bounce around?

Mr. HARFORD. The de Havilland Twin Otter.

Mr. TRAXLER. No; it is a jet.

Mr. HARFORD. 737. That is not a short haul.

Mr. TRAXLER. What is it, then?

Mr. HARFORD. Anything under 1,000 miles really, but in the order of 200 to 300 passengers.

Mr. TRAXLER. That is for short hauls.

Mr. HARFORD. Yes; and also smaller airplanes, too. You know optimizing the airplane is a question which I am not prepared to discuss today but the optimization of that design today is one that is very much in the minds of those in that field. I feel we have to make a decision about that system.

Mr. TRAXLER. I am thinking of where three or four hundred people would go on a short flight. Perhaps it makes more sense in California.

Mr. GREY. I came on the third section of Eastern's shuttle. Each one carried 100 people.

Mr. HARFORD. The 707 and DC–8 are obsolete. They are not fuel-efficient. They have to be replaced around 1980 but we do not have a decision on an advance technology transport which would be much more fuel-efficient.

We need to get going on that. One of the problems is that we keep hearing that the industry itself ought to do it. The airlines are broke, you know that.

Mr. TALCOTT. Did you hear about the Federal Government?

Mr. HARFORD. Right, we are all broke.

But I am talking about income and earnings. There is a $7 billion trade surplus that we are earning because of our aeronautical sales today, $7 billion. That is the kind of thing I think we need. The airlines do not have the money to fund this airplane.

I remind you that 707s, DC–10s, L–1011's all come from the military C–5 development program; 1,500 engineers at Lockheed, McDonnell-Douglas and Boeing were paid for by the program and all came out with the wide body jets.

Mr. TALCOTT. I voted for that. It was a tough fight.

Mr. HARFORD. There is only $175 million in aeronautical R. & D. in the NASA budget this year.

With inflation, that is down from last year. There are no facilities, even though we have needed for 10 years a high Reynolds number tunnel to do the research associated with these aircraft. We think that is a kind of masochistic state for our country to be in. In space we have in our statement here, Congressmen, a whole list of new starts that we would like to see undertaken with facilities that now exist.

You do not need to capitalize a lot of new equipment, with people that are available to do productive jobs.

In this transcript I read the statement that the popular concept of space is still that we are shooting all these rockets out there for silly tests. When you look at NASA's record the fact is that 14 out of 28 satellites launched in 1975 were customer-paid and 18 out of 28 are application satellites. Here we have Intelstat up there earning $25 million for each satellite per year. That is hard business.

Do you know that there is no money in the NASA budget for communication satellite R. & D.? Here we are just at the point where Hughes sold $71 million worth of domestic synchronous satellites to Indonesia. Are we going to be able to keep that business?

Japan, Canada, and the Soviets are all working hard at the communication satellite R. & D. And there is no money in the NASA budget. We think there is a lot right here.

You know, spin-off got a dirty name, but it is beginning to become respectable. Here is a book put out by our Institute that talks about solar energy "Solar Energy for Earth" and much of it came from the space power systems. This document "The Colonization of Space" by Gerard O'Neill, advances what on the surface may seem to be a far-fetched scheme but in fact it is a very imaginative idea.

Dr. Grey participated in a conference on this at Princeton University on a concept for building solar power stations at the Earth-Moon libration points. Then you bring them to the Earth orbit and supply

the Earth's energy. It is a concept that should be studied at least to the tune of a few tens of thousands of dollars. That is the kind of money that doesn't exist in NASA, you cannot get it.

I wish you would look at the list of starts that never got started. They are all areas where they ought to be employing people. That is the gist of my statement.

As you know, NASA is doing outlook for aeronautics and outlook for space studies. We will be reviewing them. We think there are remarkable opportunities for pragmatic Earth benefits in the NASA program that will hire people tomorrow if we could get the decisions made.

We think that is the only way we are going to pay for all these marvelous programs I heard discussed in the EPA testimony and from the HUD testimony.

How are we going to pay for all that housing? We have to earn something. We used to do it with high technology. Now we are cutting it out. We are the only major country whose expenditure on R. & D. as a percentage of gross national product is dropping. So we have to get you in the Congress to turn that around. We hope you will.

Thank you very much.

Mr. TALCOTT. I appreciate very much your testimony and your perspective of this thing. I think you have to sell a lot more broadly. It was this committee that tried desperately over 6 or 7 years to get the NASA people to tell what the benefits were back on Earth so we could justify the funding we gave NASA.

We have had to fight on the floor to preserve the NASA budget.

Mr. HARFORD. There is a lot of guilt to be passed around. A lot of it is over here. We realize our community has done a pretty bad job of explaining Earth benefits. I think we have a lot to do. We have been doing it. This kind of product which is designed for public consumption we never used to worry about.

Mr. TALCOTT. You are a pretty sophisticated group who have to talk to some unsophisticated people who will have to pay the bills.

Mr. TRAXLER. We have heard this year that there might be a fight to keep the funds in for the Space Shuttle.

Mr. HARFORD. If you kill the Space Shuttle, you are maiming one of the main moneymakers this country has. You cannot think of solar power without a vehicle to take it up there.

Mr. TRAXLER. I think it is important that you are alerted to the fact that when the NASA budget comes on the floor there could be efforts to kill the budget for the Space Shuttle.

Mr. HARFORD. We are aware. We have confidence in you.

Mr. TRAXLER. Well, we will need your help.

Mr. HARFORD. The conference mentioned in the exhibits dealt with this. It is the kind of idea that has extreme promise. It is conceptual and needs hardnosed examination. NASA cannot give it the kind of money to study it. It is an example of the kind of thing we are snuffing out with a too parsimonius NASA budget.

Mr. TRAXLER. Thank you.

[Mr. Harford's statement follows:]

Chairman Boland, Dr. Grey and I are here for the third time representing AIAA and its 25,000 aerospace engineers, scientists, and students.

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And we're looking, for the third year in a row, at a NASA budget that's smaller, with inflation, than the year before. This year: $3.5 billion inflated dollars—$2.8 billion 1973 dollars.

Now we realize that a lot of very able people, and certainly a lot of Congressmen, think even that's too much—"Space may be a nice luxury for sometime in the future but we've had enough landings on the Moon and ideas about rendezvous with the Russians, thank you, let's wait until we get the economy going again." We want to address that cliche, Mr. Chairman, because it's hurting the country a great deal.

Space is indeed an exciting field with marvelous future potential and I'm going to ask Dr. Grey to tell you in a minute about an example of its future possibilities from a conference he helped organize last week at Princeton University.

It's a very exciting example and it's the kind of thing that drastic cuts in the NASA budget could effectively snuff out.

But first we want to talk about what aerospace has already given us in Earth benefits and what it's doing for us right now as we meet.

Aerospace technology is simply not given credit for the remarkable short-term effect it has on jobs and the state of the economy.

In fact, aerospace may be the least appreciated national breadwinner this country has. It would seem to be an article of faith in the United States that advanced technology, which gave us our economic health and wealth for the past hundred years, ought to be nurtured.

How else can we stimulate a sick economy than by nurturing the generation of ideas which create new businesses which create jobs?

How in heaven's name can we support badly needed social programs—over a $100 billion this year and still growing—unless we stimulate the economy with research and development?

That would seem to be an article of faith.

But if it is, we have a lot of nonbelievers around because the United States is the only developed nation on the planet whose expenditure on R. & D. as a percentage of gross national product is going down. And it's going down fast compared to Western Europe, Japan, and the Soviet Union.

Secretary Schlesinger said the other day the Soviets are spending $30 billion on R. & D. against $21 billion for the United States. And remember that the Russian GNP is only about half of ours.

Talk about jobs, Mr. Chairman, we could put tens of thousands of able people to work tomorrow in aerospace once again—generating new ideas for new products for new businesses and triggering a multiplier effect that will eventually create hundreds of thousands of jobs.

But what in fact are we doing?

Did you know, Mr. Chairman, that there is not a single major civil aviation development program underway in this country today?

You have the appropriations responsibility for NASA. Did you know that the United States has sold 93 percent—by value—of all of the transport aircraft on order or in operation in the free world but we don't have a single development program underway.

We haven't made a short-haul system commitment yet, but the Russians are developing YAK 40's and YAK 42's, the Germans the VFW 614, the Dutch the F–28 and the French the Mystere 30/50—all candidates for the burgeoning short-haul market?

Also, we know that our 707's and DC–8's are going to have to phase out by 1980 because they are obsolescing.

But we haven't yet made a decision to develop a successor to those aircraft, although we have here a report that shows all of the development work that we ought to be doing to produce the next generation advanced technology transport.

We used to depend on the military to develop new aircraft that could then be adapted in civil versions. That's how we got the 747, 1011, and DC–10. But the military isn't developing the kinds of airplanes that can be adapted to civil use any more.

The airplane business gave us a $7 billion trade balance surplus last year. Wouldn't you think we'd be pushing a winner like that? Instead we're cutting its legs off. There's $175 million in aeronautical R. & D. in the NASA budget for fiscal year 1976—less than last year when you apply a 10 percent inflation factor. That's national mascohism.

Or take space—and let's not talk about the future—let's talk about what we're earning for this country with our space technology. It may surprise you to know

that 14 out of 28 NASA launchings in 1975 are not coming out of the NASA budget but are being reimbursed by customers—mostly communications satellite and weather satellite customers.

Think back a little. Nine years ago, the 85 pound Early Bird carried 240 telephone circuits. Today's Intelsat 4 relays 4,000 telephone circuits or 12 TV channels at half the cost of 1964. Think of what that means in stimulating international business. Each Intelsat up in orbit (and there are four of them) earns Comsat $25 million a year, while doing an effective job for U.S. international businessmen.

But NASA has near-zero funding for communications satellites R. & D. while Japan, Canada, and Western Europe are galloping along. Will they take the business from us just at the time the demand is making itself felt? Indonesia just gave $71 million in contracts to Hughes Aircraft to build a domestic synchronous satellite system.

Weather satellites are saving our farmers tens of millions of dollars a year and getting better all the time.

Or let's talk about food and resources. There are now two Landsat satellites in orbit gathering data and pictures on crops, mineral resources, water supply and a lot of other things. U.S. companies are beginning to generate some income from foreign countries building land stations for receiving and interpreting the data. There's one station in Brazil, two in Canada, one each in Iran, and Italy, and even Zaire is putting its own money up to build a station that will cover Chad down to South Africa and Kenya all the way to the Ivory Coast. That satellite is going to enable us to do such things as forecast the wheat crop.

There's one estimate that a 25 percent improvement in wheat crop forecasting would benefit consumers by over $200 million a year. That's more than the cost of the whole Landsat program.

What about other spinoffs to the economy? The spinoff concept may have been overstated for some years but maybe this book will help give it some of its deserved respectability.

This is an assessment AIAA has just done on "Solar Energy for Earth." Why did the American Institute of Aeronautics & Astronautics do this survey? Because much of the technology came from the space program. It's an optimistic report with recommendations for pushing near-term work like solar heating and cooling systems, but it also points to some very promising new areas—like solar thermal electric power and photovoltaic power.

Again, Mr. Chairman, you'd think with the NASA track record for Earth benefits from space, there'd be some modest increases to develop more new ideas. But I have a list here, that I won't read to you, of proposed new starts that are not included in the fiscal year 1976 budget.

For the first time in NASA's history there are no new starts budgeted for.

Here are some of the efforts that never made it through the budget cycle:

The large space telescope for a shuttle payload. (Cut from $10 million to $5 million in study work.)

A Mars lander and surface sample return as follow-on to Viking 75.

A solar maximum mission (NASA's request reduced from $8 million to a $1 million study).

A servere storm observing spacecraft (cut from $3 million to $1 million in study funds).

An out of ecliptic solar mission, powered by a solar-electric-propulsion stage. (Cut to zero from a $5 million request).

A long-mission manned space station module, perhaps developed jointly with the Soviets.

Resumption of research in advanced communications satellites.

A Jupiter orbiter. (Results from Pioneer II suggest that Jupiter today may resemble very closely the conditions on Earth before or during the birth of life on our planet. How can we afford not to study the big planet!)

A Venus atmospheric probe.

A sustaining effort on rocket propulsion research in OAST. (We've virtually lost the liquid-rocket research capability that has given us the whole field of space. There's no base left on which to build the new technology we'll need years from now for your future missions and we are doing no nuclear propulsion at all).

A radiation budget satellite (cut to zero from $1 million).

Now I'm going to ask Dr. Grey to tell you about the Princeton Conference he cochaired last week.

Dr. GREY. Mr. Chairman, the conference dealt with a concept which at first hearing, may sound farfetched. In fact, though, it offers an exciting possibility to generate an unlimited supply of energy for this planet and in a reasonably short period of time—of the order of 20 years.

It depends on some form of reusable space transportation like the shuttle—and that, Mr. Chairman, should be reason enough to make sure the shuttle funds are not cut. We have an enormous stake in the success of the shuttle and it simply must continue!

Let me emphasize that it is still a concept. I don't want to overstate the case. In fact, though, the meeting we had in Princeton was designed to expose the concept to about 150 very hardnosed engineers, economists, corporate officials, and scientists. I'm going to give you just a brief description of the idea and leave with you a more detailed account from this reprint from Physics Today written by the originator of the concept—Professor Gerard K. O'Neill of Princeton University.

The idea is to put a colony of people in the stable Earth-Moon orbit known as the L5 Lagrangian libration region—where the gravity forces of the Moon and Earth are equalized.

A main function of the first colony—there could be many more built eventually—would be to manufacture solar power stations which can be placed in synchronous orbit. The power stations would provide more than enough energy to supply the entire planet.

The first space colony would house about 10,000 people and about 90 percent of the materials for constructing the colony would come from the lunar surface. The rest—including people—would come from earth. Surprisingly, the first cost estimates are reasonable, varying from $30 billion to $120 billion. When one realizes that $120 billion is only 20 percent of the cost of Project Independence, one begins to consider how attractive a concept this is for investigation.

Mr. HARFORD. Mr. Chairman, we stress again that this is only a concept at this stage but it is worth exploring. Significantly, it is the kind of R. & D. effort that could be stifled by a too parsimonious NASA budget.

With a bicentennial coming up, let's remember that we are, after all, a nation of revolutionaries, and we ought to be looking into audacious ideas like this.

Mr. Chairman, during the next year, AIAA will be evaluating NASA's "Outlook for Aeronautics" and "Outlook for Space" projections. We will be examining which R. & D. efforts ought to get the support of the Congress for the fiscal year 1977 budget. We fully expect to be making the case for an upturn in the NASA budget after 7 consecutive years of decline.

Someone is going to have to pay for the badly needed social, environmental, urban, and transportation problems that we've made for ourselves in the United States and we think aerospace can and should pay its share.

So let us!

NATIONAL SCIENCE FOUNDATION

WITNESSES

DR. MARY L. GOODE, EXECUTIVE COMMITTEE MEMBER, AMERICAN CHEMICAL SOCIETY
DR. ROBERT W. CAIRNS, EXECUTIVE DIRECTOR, ACS
FRED TATE, DIRECTOR OF RESEARCH AND LONG-RANGE PLANNING
NATHANIEL CARNES, PUBLIC AFFAIRS OFFICE

Mr. TRAXLER. Now, we have Dr. Mary Goode and her associates. Would you like to introduce those accompanying you?

Dr. GOODE. We have with us Dr. Robert W. Cairns, executive director of the American Chemical Society and Fr. Fred Tate, director of research and long range planning and Mr. Nathaniel Carnes from the public affairs office in the back row.

First of all, we appreciate the opportunity to be here.

We appreciate being given this opportunity to comment on the HUD–Independent Agencies Appropriations Act, 1976, regarding science information systems. It is appropriate that we give this tes-

timony since our national charter imposes obligations on the society to provide assistance to the Government in matters of national concern related to the Society's areas of competence and also to work for the advancement, in the broadest and most liberal manner, of chemistry, "thereby fostering public welfare and education, aiding the development of our country's industries, and adding to the material prosperity and happiness of our people."

Founded in 1876, the American Chemical Society was chartered as a nonprofit, scientific, and educational organization by an act of Congress which was signed into law on August 25, 1937.

A majority of our membership is industrial.

We presently have about 60 percent of our members employed by industries.

Current membership in the society is approximately 110,000 individual chemists and chemical engineers, reflecting a broad spectrum in academic, governmental, and industrial professional pursuits. Chemical or other companies are not eligible for membership. About 60 percent of our members are employed by industry, about 25 percent by academic institutions, and 15 percent by Government and nonprofit institutions.

The American Chemical Society, primarily through its Committee on Chemical Abstracts Service of the Board of Directors, has monitored the amounts previously allocated in the National Science Foundation budget for science information activities. The society recognizes this Federal support as fundamental to national science and technology policy and of vital significance to the ability of our Nation to resolve many of the problems which confront it. We believe that the views presented by the American Chemical Society represent a consensus of the Nation's science community.

The society is concerned about an impending national crisis in the supply and use of scientific and technical information. This crisis results from budget reductions imposed on the National Science Foundation's Office of Science Information Service (OSIS) by the Office of Management and Budget. These pressures have resulted in steadily decreasing OSIS obligations from a peak of $14.4 million in fiscal year 1968 to $5.0 million in fiscal year 1975. The administration's fiscal year 1976 request is up slightly to $6.0 million. The American Chemical Society recommends that science information activities be identified in the HUD–Independent Agencies Act, 1976, at the maximum authorized level for fiscal year 1976. The society has recommended an authorization of $8.5 million for development of scientific and technical information systems and an increase in funding over the next several years to 4 percent to 5 percent of the National Science Foundation budget.

The society's concern is for the individual discipline information services (those for chemistry, physics, biology, and so forth) which are operated on a nonprofit basis by scientific and engineering societies trained in the various disciplines. These services provide access not only to the information associated with a single discipline, but to all other scientific and technical information as well. Each individual or organization has interdisciplinary information requirements which are as personal and unique as an individual's fingerprints. The services, therefore, collectively constitute an essential national and international

resource for satisfying informational requirements of public and private groups.

Science and technology have traditionally grown by the building of new developments upon previous ones. The record of science has grown so large, however, that the accumulated record cannot be managed and utilized effectively with traditional tools, especially since it is spread across the world's publications and is too complex in detail to permit reliable, timely access to the existing store of information. This problem can be illustrated by considering the output in 1974 of the Chemical Abstracts Service of the American Chemical Society. This abstracting and indexing service published about 26,300 pages of abstracts and 27,800 pages of indexes in 1974—corresponding to more than 3 million pages of original documents. This is, of course, the annual increment for only one scientific discipline.

The problem of effective use of scientific and technical literature through automated services is so overwhelming that it cannot be solved by the seeding operations such as those presently constituting OSIS programs. Neither can it be solved simply by increasing the amount of funding for these seeding operations, but will be solved only through systematic development of automated tools specifically designed and coordinated to provide prompt and reliable access to stored information.

This information problem is not confined to a few fields of learning, or to specific types of business and industry, or even to selected branches of government. The problem is general, touching every individual and organization in the United States and around the world. Nations meet their information needs by being able to select from a wide range of subjects and from the publications of a large number of countries. The value of information comes not from its source, but from the context of its application. Indeed, our national welfare depends heavily on information generated outside of the United States as well as at home, and we share with other countries the use of major information accessing tools generated throughout the world. No nation can be self-sufficient in meeting its information needs.

The serious information problem facing the United States is related to today's major national and international problems, which are dominated by societal concerns. We are learning that problems of population control, urban crises, transportation revitalization, energy conservation, natural resources management, environmental protection, ecologic impact, and food shortages are interrelated, and therefore, their solutions are interdependent. Timely solutions to these problems are hampered by the inability to gather the necessary information quickly, which although it already exists, often cannot be located in time to be used in evaluating or solving the problems. Current tools do not provide adequate or timely access to scientific and technical information that is necessary to deal responsibly with societal problems.

Improved access to the scientific and technical literature requires the creation of computer-based information distribution systems that will allow a high degree of individualized access. Such systems are technically feasible, and the United States is capable of developing them if the resources are made available. The approach required is an organized, sustained, systems engineering approach. Some applied research is needed, and some basic research from other fields can be

used, but assured progress requires, first, a demonstration that it is practical to change present information processing and information exploitation mechanisms, and then, careful coordination of the implementation in the discipline systems.

The OSIS programs launched in the middle and late 1960's led to the introduction of computer-readable files which parallel the existing printed abstracting and indexing publications. Automated search of these files helps to overcome some of the cumbersome handling problems of printed publications. It is fair to say that the largest and most widely used of the current computer-readable services devoted to scientific and technical information originated through OSIS programs. However, these services are still far from satisfactory. They are first, or possibly early second, generation information systems which are operating on fourth, soon to be fifth, generation computers.

Thus, the sophistication of current hardware and software techniques, made available mainly for other purposes, are beyond the capability of the scientific and technical community to adapt immediately and reliably to information processing. Successful automation of scientific and technical information resources demands deep-seated reorganization in the approach to the recording, storing, managing, and using of information. Further, the potential of computer technology has not started to approach anything like a plateau. The technology in use by information processors will need to keep pace with that developed by those engaged in business and governmental activities.

The alternatives offered by developing computer technology are so numerous and are expanding so rapidly that there will continue to be rapid change in information systems over the next several years, and these systems will have to continue to adapt to new hardware and software capabilities. In other words, the development of the necessary information-handling systems is neither a short-term nor a one-time effort. Success demands steady, long-term buildup in information handling capability and the associated continuing regular investment in improvement of such systems.

Unfortunately, OMB pressures on OSIS over fiscal year 1969–74 culminating in fiscal year 1975 have effectively eliminated continuing OSIS support for improvement in the production and automated search of discipline information services. However, there is no alternative source of Federal support for this development, and the nonprofit scientific and engineering societies do not have the resources to finance this development. Without Federal aid, the viability of these services is in serious jeopardy. The problem is intensified greatly by the substantial investments in systematic development of the information services operated by Federal agencies which often are in direct competition with these private services.

The information services developed by Federal agencies to suit a given mission, such as space, energy, medicine, and the environment, reflect current practical needs for certain kinds of applications of science and technology and depend on informatoin derived from combinations of disciplines. In support of the mission services, the discipline information services are essential to assure access to information which predates the existence of any given mission and to provide con-

tinuity with related information which is not linked closely to the needs of a given mission.

It should be noted that there have been no cutbacks in the continuity of support for agency-operated or mission services, nor should there be—outstanding advancements have been made in developing these services, and it is in the public interest to continue such development. However, unless a way is found to assure continued development of the privately operated services, those services will fall far behind in their ability to meet the needs of both the Government and the public.

Computer-readable information services are already important tools, but we need to greatly simplify and extend their use. They should become as easily used as today's telephone, radio, and television communications system. This will require education of the user, and it will also require engineering to tie the user into the system in such a way that use of the system can be almost as uncomplicated as long-distance telephone calls.

The American Chemical Society recognizes that, even with wide dependence on computer-readable tools, printed books, journals, and reports will continue to be the principal means of recording and disseminating information. Books are of durable value and can be read directly by an individual. Nevertheless, as we have indicated, printed tools alone are not sufficiently versatile to be responsive to many of the critical demands for information.

Since it will be necessary to have automated systems for locating information quickly and thoroughly and printed publications for familiar and long-term use, the same processing system must produce both forms of output without expensive duplication of effort. Also, computer-based systems will have to become almost as easy for scientists and engineers to use as books are now. This is not the case with a computer storehouse of information at present.

The processes equivalent to thumbing and reading require the user to communicate with the computer through a complex language. Most individuals, including those well versed in the content of a given computer bank, cannot get at the information without a great deal of personal assistance. The situation is somewhat like an individual in 1925 in Rice Lake, Wis. wanting to speak directly to a friend living in Mannheim, Germany.

Unlike the crude communication system of 1925 which had no underlying reserve technology, the basic computing know-how is already available for automating an information supply system with phone-like access to information banks. Development of the necessary supply system depends upon adoption of techniques and components selected from computer applications such as accounting, communication support, manufacturing control, system modeling, and mathematical computation. The alternative to such development is a very substantial rise in the cost of providing the printed indexing and abstracting version of the information services. The consequent reduction in subscriptions would limit the availability of scientific and technical information, particularly to small colleges and business firms, and would leave the largest part of our most productive citizens without direct access to important intellectual and creative ingredients in their work.

In considering the need for Federal support of the development of

information services, it should be remembered that OSIS like the rest of the National Science Foundation represents a coalescence of basic activities gathered together in the public interest to assure that reserves in our national store of knowledge are complete, with no segment overlooked. The society has recently noted in a statement to the Subcommittee on Science, Research, and Technology of the House Committee on Science and Technology that OSIS has already demonstrated its ability to generate and direct an effective program aimed at systematic development of scientific and technical information resources in the United States. We urge that OSIS be returned to this role, that OMB restrictions on the OSIS program be removed, and that OSIS be funded at the maximum authorized level.

The fiscal year 1975 budget for OSIS programs limited its activities to a diverse set of investigations with objectives such as "determining feasibility," "evaluating alternatives," and "testing approaches." Under the budget constraints within which OSIS now operates, these programs are probably the best compromise, for they would be a highly useful basic part of a balanced research and development effort aimed at improving information supply systems in the United States. However, the funds available for OSIS, and other OMB restrictions on OSIS, do not permit support of development work aimed at systematic improvement in existing information services based in the United States. For the same reasons, useful results coming from the current OSIS projects cannot be brought to maturity. This is inconsistent with the NSF purpose of assuring essential competence in science and technology—including information handling technology—and assuring strong and complete reserves in our national store of knowledge. In this framework, the investment in OSIS programs, even at the level recommended by the society for the future of 4 to 5 percent of the foundation budget, is low.

In conclusion, we offer these suggestions to the Congress in a spirit of cooperation in the hope of developing the best possible mechanism for achieving fast, efficient, and comprehensive dissemination of scientific and technical information. We recognize, as surely you do, that the availability of scientific and technical information is vitally necessary to the conduct of research and development in this country. Our hope is that we can continue to contribute to sustaining the tradition of scientific excellence and technological competency in the United States, on which our national well-being is dependent.

Mr. TRAXLER. Any questions?

We appreciate your thoughtful presentation.

ENVIRONMENTAL PROTECTION AGENCY

WITNESSES

CHARLES B. KAISER, JR., DIRECTOR AND LEGISLATIVE CHAIRMAN OF THE ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES
LEE C. WHITE, COUNSEL, ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES

Mr. TRAXLER. Our next witness is Lee White.

Mr. WHITE. Mr. Chairman, although my name, Lee White, is on the list, Mr. Kaiser, president of the Metropolitan Sewerage Agencies,

the general counsel of the St. Louis Metropolitan Sanitary District, and our legislative task force director or chairman, will make a far better presentation because he can tell you about the way the real life is out in St. Louis and Milwaukee and Detroit and all the other major cities of the country.

Mr. KAISER. Mr. Chairman, I will be brief. We did print our statement on both sides of the paper. Basically I am constantly amazed at the breadth of the appropriations you have to consider.

My name is Charles B. Kaiser, Jr., and I am here today in my capacity as a director and legislative chairman of the Association of Metropolitan Sewerage Agencies, an organization representing the large sewerage agencies throughout the United States. I am also general counsel of the metropolitan St. Louis Sewer District and the immediate past president of AMSA. The membership of our organnization includes over 50 agencies from the Nation's largest cities representing over 60 million people. Accompanying me is Mr. Lee C. White, Washington counsel for our organization.

SUMMARY

Our purpose in testifying before the subcommittee today is to urge that appropriations in the amount of $250 million be included in the EPA budget for fiscal year 1976 to enable EPA to initiate the payment of reimbursement funds authorized by section 206(b) of the Water Pollution Control Act of 1972.

I will limit my statement to an explanation of why we are asking for this reimbursement.

In the time of 1956 to 1966 many programs were started. For instance, Cincinnati, Cleveland, Detroit, St. Louis, Kansas City, and Seattle, we went ahead with programs when the Federal funding enabled the larger cities to get zero dollars from the Federal Government but because we were being urged to clean up our rivers. We went in St. Louis with a $100 million bond issue and built two huge treatment plans to provide treatment on the Mississippi River. Those treatment plants today would be costing $300 million. As thanks for our people going into debt for $300 million the administration said they are not going to fund the reimbursements. They said, you went ahead and that is nice and saved us millions of dollars.

Mr. TALCOTT. But it was good and necessary for your citizens.

Mr. KAISER. Those who refused and said you come up with the money or we are doing nothing are being rewarded with 75 percent public grants and have huge public works projects as badly needed as were ours. We feel it is a matter of integrity if the Federal Government says go ahead and we will reimburse you and they should reimburse us.

Mr. TALCOTT. How far back should we go?

Mr. KAISER. The law says 1956, but most of us got into this in 1960. We did not have our bond issue until 1962. That is when we made the huge commitments. Another thing that happened was that large cities like on Lake Erie which I represent, in Cleveland, for instance in the years we were talking about didn't get one penny of Federal dollars because there was such a limit on funds.

We are not asking for this to be granted back to us and used helter-skelter.

We are asking that only a portion of the $750 million, we are asking for $250 million but anything would help us and save us from going on with another bond issue to help finance our local share now of the new commitment that we are all making.

Mr. TALCOTT. You get a Federal share of any new additions.

Mr. KAISER. Yes; but most of us are so much in debt that matching the 25 percent becomes a severe hardship.

We are $100 million in debt just in our Mississippi River watershed.

Right now we are having to acquire expensive ground in the industrialized area.

We have no Federal funding whatever in land acquisition.

Mr. TALCOTT. Has your association computed how much it would cost to provide this kind of reimbursement for everyone?

Mr. KAISER. Yes, sir, it is $750 million. That was authorized in the bill. I might say we would be most pleased to spread this out even longer than the $250 million we are asking.

We certainly realize, as we state in our statement, the budget problems of the U.S. Government but we happen to have advanced huge sums of money without any Federal funding, or almost nothing, and we are asking for $200 million.

Originally about 3 or 4 years ago, in 1973 we only asked for $100 million. At that level we thought we could take care of all of our commitments and we have tried to be as reasonable and as fair in this, knowing the constraints on the Federal budget. But the last time we testified in 1973 we asked for $100 million.

Mr. TALCOTT. Some reimbursements were made, right?

Mr. KAISER. After 1966.

Mr. TALCOTT. So you want to go further than that.

Mr. KAISER. Reimbursement is like this: By the time the 1966 act came about the limitation on funding projects like ours was out. Congress in its wisdom finally saw the merit and they did not limit large projects to small ones so from 1966 on we have no problem. We were treated like everybody else.

It was from 1956 to 1966 that Cleveland, Cincinnati, Detroit, Los Angeles, Kansas City, and Indianapolis got almost zero dollars for their projects. We have a list of that in the testimony of those cities, but basically we feel that the maximum would be $750 million and we would be almost happy to take any part of that. It has never been asked to be funded even partially by the administration.

We feel that we have saved ourselves, yes; and the Federal Government billions of dollars by our going ahead because the $100 million we spent which was at that time the largest bond issue in the country for pollution abatement, now would cost, we estimate, at least $300 million. So we think we have saved money and we would be getting back approximately $14 million which would enable us to really make some dents in future pollution problems.

Mr. TALCOTT. Would this be a precedent for those who did things in the waste water treatment and air pollution control?

Mr. KAISER. No; I don't think so. I think only in water was the authorization so much over the funding. In other words, it is in the 92–500. It provides for these.

We don't think it would be, because basically what this reimbursement is all about, as we said here, you are entitled to *x* grant from the Federal Government but then when it got to the appropriations they

said, "But because we did not appropriate sufficient to give you what you are entitled to, go ahead and build it and someday we will reimburse it." We just got a check for $600,000 for projects we built in another watershed after 1966 and it comes in handy now when the additions to that plant are going through the roof.

We are not getting reimbursement for all the others. I don't think it sets a precedent. We don't like to use the word integrity, because in our agency we got along good with the Federal Government, but you said "Go ahead and we will repay you," and now what EPA and the administration is saying, "Well, it is built, so let's forget it." We don't want to say "Let's forget it." It is in the act and it is a question of dollars.

Mr. TALCOTT. The Federal Government didn't say "Go ahead and build it and we will repay you." The Federal Government said "We are thinking about helping to reimburse some people like you who built projects a long time ago." You saw the need and the citizens voted to do it. Then it was after the fact that the Federal Government came and said, "We are thinking about repaying you."

Mr. KAISER. Not from 1966 on.

Mr. TALCOTT. But you are not talking about that.

Mr. KAISER. We have asked for some funding there because it has not been fully funded, but that was second, sir.

I think that we realize that you are on top of that. The other thing that we just had to get going on, pollution abatement projects.

Mr. TALCOTT. But there was no promise by the Federal Government that we would repay you for anything before 1966.

Mr. WHITE. It was not a contractual promise but it was pretty implicit because Congress said 30 percent will be forthcoming.

Well, the 30 percent was not forthcoming, in large measure the appropriations—that is when it was done on an annual appropriation basis.

Mr. TALCOTT. You are saying, "We thought we were going to get a 30 percent rebate and we built something else."

Mr. KAISER. May I tell you how that came about? What happened—the percentage, we were only getting $2.4 million—so what happened was we could let a contract on a $10 million interceptor, the 30 percent would qualify us for $2.4 million. The ballgame changed because they came up with a term operable project which included the treatment plant and the interceptor.

When they came up with an operable project, by that time we had, so to speak, in our own way. But I think the main reason was the lack of appropriations then.

I know that probably if not more so, you have the same problems with money that they were having back from 1956 to 1966.

Mr. TALCOTT. Except they are worse.

Mr. KAISER. We have asked for $250 million. I would say that if we could get just the $100 million we asked for sometime ago, that would really help some of those cities, particularly, I am thinking of Cleveland, on Lake Erie, and Detroit, and other cities that really have huge outlays to make the Great Lakes clean again.

Chicago has a tremendous problem of storm water overflows polluting Lake Michigan. They got zero dollars in that area. I don't want to take too much of your time. I would like to thank you for this time

and tell you that we, in the large municipalities—I think you are well aware of our financial problems. I would say that Los Angeles was one of the areas where both the county district, and city district, if you notice it in our statement, Los Angeles County is in for $11 million and I think the city for $9,300,000. They went ahead because they had to and now they are going ahead again. I understand the Governor is after them to make it more a public works program than a clean water program.

Mr. WHITE. That is another point. This money, if it is put in these undoubtedly are going to be in high job producing activities.

The ratio of dollars to jobs is extraordinarily high. These are projects that otherwise might be stymied even with the 75 percent Federal funds because of the difficulty of some communities of getting the local 10 or 15 percent matching funds.

This would facilitate that.

Mr. KAISER. What really hurts—and maybe this is not your problem, but it is ours—in St. Louis we had a decision. We are on the river and Memphis is on the river. We decided to go ahead with $105 million for water pollution abatement. Memphis said they would instead build a new port facility. Now they are going ahead with primary and secondary treatment with 75 percent Federal dollars and they are taking our port business away from us.

That relates to our town. We feel that we should not get hit in the nose because we saved a ton of money and went ahead and cleaned up the river that we dumped on to Memphis.

They are dumping theirs on New Orleans. I don't want to pick on them. It is very real to us. I am sure you can talk about Seattle versus somebody else. That is how it hits us.

I appreciate your time and patience to let us come here and testify.

Mr. BAUCUS. Thank you very much. We appreciate your taking the time to tell us your views.

[Mr. Kaiser's statement follows:]

STATEMENT OF ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES
BEFORE THE SUBCOMMITTEE ON HUD-INDEPENDENT AGENCIES
UNITED STATES HOUSE OF REPRESENTATIVES
ON APPROPRIATIONS FOR THE ENVIRONMENTAL PROTECTION AGENCY

May 15, 1975

Mr. Chairman and Members of the Subcommittee:

My name is Charles B. Kaiser, Jr., and I am here today in my capacity as a Director and Legislative Chairman of the Association of Metropolitan Sewerage Agencies, an organization representing the large sewerage agencies throughout the United States. I am also General Counsel of the Metropolitan St. Louis Sewer District and the immediate past president of AMSA. The membership of our organization includes over 50 agencies from the nation's largest cities representing over 60 million people. (Appendix A is a list of our members.) Accompanying me is Mr. Lee C. White, Washington Counsel for our organization.

SUMMARY

Our purpose in testifying before the Subcommittee today is to urge that appropriations in the amount of $250 million be included in the EPA budget for Fiscal Year 1976 to enable EPA to initiate the payment of reimbursement funds authorized by Section 206(b) of the Water Pollution Control Act of 1972. These reimbursement funds are to provide full Federal funding for those municipalities which, during the period 1956 to 1966, responded to Congressional urging to get started on constructing waste treatment facilities to clean up their waterways. The policy of the then applicable legislation was to provide 30% Federal matching grants for the construction of waste treatment facilities, but numerous municipalities throughout the country did not receive the full 30% through no fault of their own. The Congress in enacting the Water Pollution Control Act in 1972 authorized in Section 206(e) $750 million to be appropriated for this purpose. The Administration requested no money for Section 206(b) reimbursement funds in its EPA budget, but this is hardly surprising in light of the Administration's opposition to Section 206(b) during the Congressional deliberations.

Our request is for $250 million rather than the full $750 million authorized by PL 92-500 because we are cognizant of the budget ceiling adopted by Congress and, moreover, we believe those funds should be used to finance the local share of new waste treatment and related facilities, and there is always a time lag, especially for large cities whose construction programs require a number of years for completion. It is our suggestion that in Fiscal Year 1977 an additional $250 million be appropriated and similarly in Fiscal Year 1978, thereby using up the total authorization contained in Section 206(e).

Additionally, AMSA urges that $700 million be added to the FY 1976 EPA budget for reimbursement purposes authorized by Section 206(a) dealing with the period between July 1, 1966 and July 1, 1972. Initially, Congress in PL 92-500 authorized $2 billion for this purpose and subsequently appropriated $1.9 billion of that amount. Later Congress increased the reimbursement authorization for this 1966-1972 period by $600 million, making a total of $700 million authorized, but as yet unappropriated.

DISCUSSION

The rationale for the $750 million authorization rests in the fact that numerous cities throughout the United States, in response to Federal legislation, undertook to commence the construction of facilities required to clean up the Nation's waters, but did not receive the full 30% Federal funding provided for in the law from 1956 to 1966. This failure to receive the full amount was not the result of any improper or imprudent action on the part of the cities, but rather stemmed from limited appropriations and because of dollar limitations placed on the amount of funds that could be granted for any single project. This obviously worked to the detriment of those metropolitan systems whose projects required considerable funding.

In order to get on with the job, it was necessary, therefore, for the cities to use their bonding authority and to require a greater commitment on the part of their citizenry than the Federal legislation contemplated.

Our Association stressed to the Public Works Committees of both the House and the Senate these past inequities and urged the Congress to rectify the situation. We argued, and we believe with some persuasion, that failure to reimburse cities which acted in response to the urgency of a national need, but did not receive the full Federal funding would result in great wariness on their part when asked to participate in Federal matching programs in the future. Those communities which did not respond and which did not tax their own citizens, in effect, were rewarded by their failure to act on a timely basis when the Congress in 1966 raised the Federal share to a maximum of 55%. There is, in short, a matter of good faith that is involved here. We believe the case for the proposition is admirably summed up in the report of the House Public Works Committee on the Water Pollution Control Act of 1972:

> The Committee intends that the Federal Government provide sufficient and timely reimbursement of funds to States and localities which committed their own funds to prefinance a portion of the Federal share of the eligible cost of construction of waste treatment facilities. This is a matter of equity since by such commitments the national program to clean up the Nation's waters has been expedited. (H. Rept. 92-911, page 94).

The $750 million figure was not plucked out of the air, but represented the Committees' estimates of the total entitlement on the basis of information supplied by our organization, The National League of Cities/ United States Conference of Mayors, the states and the Administration. Attached to our statement, as Appendix B, is a table from the House Public Works Committee Hearings on Water Pollution Control Legislation - 1971 (page 924), showing the amounts selected cities across the Nation were shortchanged.

The concept of reimbursement for those cities was first incorporated into legislation introduced in the House in the 92nd Congress by Congressman Kluczynski (H.R. 8935) and in the Senate by Senator Magnuson (S. 1259). Both of those bills provided that the reimbursement funds for the 1956-66 period would be used only in connection with water treatment activities, a provision which our organization regarded as reasonable. This requirement was not incorporated into Public Law 92-500, but we would have no objection to such a requirement being made a part of the Appropriations bill or, in the alternative, that such a requirement be spelled out in the Committee Report on the bill.

With respect to the funds requested for reimbursement for projects undertaken between 1966-72, the very same principles apply that are discussed above with respect to 1956-66. Here, too, communities acting upon assurances by the Federal government used their own bonding authority, and in some cases funds were advanced by states, to keep up the momentum during a period of inadequate Federal funding. The Congress recognized its commitment by having already appropriated $1.9 billion for this purpose and by increasing the initial authorization by an additional $600 million. Many cities of this country responded to their own obligations and needs to their citizenry, as well as to the national policy initiated by Congress. It would be unfair, to put it mildly, not to make good on a national commitment.

Municipal systems, and in particular, the systems serving major population centers throughout the country, have the major burden of implementing the Nation's Water Pollution Congrol program. Without adequate commitment of public funds, the job simply will not be done. We believe this Subcommittee has an opportunity to assist those city systems, and we urge you with all of the earnestness we possess to do so. We believe our requests are rooted in justice and fair play, that it is a critical factor in the ability of the cities to continue with their programs and that failure to appropriate funds for this purpose will shake the confidence of the cities of this country in Federal programs.

Aside from the arguments based on equity and fair dealing with communities, today's economic situation provides even stronger and more compelling support for including this $250 million item in the EPA budget. These funds will be used by municipal sewerage agencies to move forward sewerage projects in their communities and will undoubtedly provide an economic stimulant. In most cases, construction work, which

has a high ratio of jobs to dollars, is involved, a consideration that surely merits the attention of the Subcommittee as we are trying to get the economy back on its feet. These funds will go to projects of unquestioned need and will be assistance to many cities with difficult financial situations.

We appreciate the fact that the EPA budget has been handled by a different Subcommittee in the recent past. We are pleased to be able to present our request to this Subcommittee and will be happy to provide any additional information that you, Mr. Chairman, or other members of the Subcommittee may desire in support of the additional funds we are requesting.

Thank you.

APPENDIX A

ASSOCIATION OF METROPOLITAN SEWERAGE AGENCIES
Member Agencies, May 1975

Greater Anchorage Area Borough, Ak.

City of Phoenix, Az.

City of Tucson, Az.

City of Los Angeles, Ca.

County Sanitation Districts of Los Angeles County, Ca.

East Bay Municipal Utility District Oakland, Ca.

County Sanitation Districts of Orange County, Ca.

City of Sacramento, Ca.

County of Sacramento, Ca.

City of San Diego, Ca.

City and County of San Francisco, Ca.

City of San Jose, Ca.

Metropolitan Denver Sewage Disposal District No. 1, Co.

The Metropolitan District (Hartford County), Ct.

Miami-Dade Water and Sewer Authority, Fl.

City of Atlanta, Ga.

City and County of Honolulu, Hi.

Metropolitan Sanitary District of Greater Chicago, Il.

City of Indianapolis, In.

City of Wichita, Ks.

Louisville and Jefferson County Metropolitan Sewer District, Ky.

City of Baltimore, Md.

Washington (D.C.) Suburban Sanitary Commission, Md.

Metropolitan District Commission (Boston), Ma.

Detroit Metro Water Dept., Mi.

County of Wayne, Mi.

Metropolitan Sewer Board (Minneapolis-St. Paul), Mn.

City of Kansas City, Mo.

Metropolitan St. Louis Sewer District, Mo.

City of Omaha, NE

Bergen County Sewer Authority, NJ

Middlesex County Sewerage Authority, NJ

Passaic Valley Sewerage Commissioners, NJ

City of New York, NY

City of Greensboro, NC

Metropolitan Sewer District of Greater Cincinnati, Oh.

Cleveland Regional Sewer Dist., Oh.

City of Columbus, Oh.

City of Dayton, Oh.

City of Portland, Or.

Allegheny County Sanitary Authority, Pa.

City of Philadelphia, Pa.

City of Providence, RI

City of Memphis, Tn.

Metropolitan Government of Nashville & Davidson Cnty., Tn.

City of Dallas, Tx.

(Continued)

City of Fort Worth, Tx.

City of Houston, Tx.

Hampton Roads Sanitation District, Va.

Municipality of Metropolitan Seattle, Wa.

City of Charleston, WV

Metropolitan Sewer District
of the County of Milwaukee, Wi.

TABLE V.—SUMMARY OF MAJOR SEWERAGE AGENCIES EXPENDITURES, GRANTS RECEIVED, AND INCENTIVE GRANT ENTITLEMENT

[Figures in thousands, add 000]

Agency	Population served 1969	Investment for pollution control (1956–69)	Minimum Federal share that should have been received under congressional policy (30 percent)	660 funds received	Entitlement for future incentive grants under H.R. 8935
Albuquerque, N. Mex.[1]	250	$9,560	$2,870	$1,960	$910
Boston MDC	2,100	20,605	6,182	4,250	1,932
Chicago MSD	5,250	35,555	10,667	11,852	(2)
Cincinnati MSD	800	60,170	18,051	152	17,899
Cleveland, Ohio	1,110	22,000	6,600	----------	6,600
Columbus, Ohio	725	31,000	9,300	----------	9,300
Dallas, Tex.	900	5,750	1,725	----------	1,725
Denver MSD	800	28,000	8,400	5,000	3,400
Detroit, Mich.	3,000	28,528	8,558	3,513	5,045
Houston, Tex.	1,200	80,000	24,000	3,250	20,750
Indianapolis, Ind.[1]	650	93,600	28,100	6,900	21,200
Kansas City, Mo.	760	46,235	13,871	4,177	9,694
Los Angeles, Calif.	3,255	39,810	11,943	----------	11,943
Los Angeles County	4,228	27,171	8,151	4,464	3,687
Louisville, Ky.[1]	495	20,250	6,080	250	5,830
Memphis, Tenn.[1]	550	6,800	2,040	----------	2,040
Middlesex Co., N.J.	750	33,390	10,017	2,037	7,980
Milwaukee MSD	1,075	131,422	39,427	6,489	32,938
New York City	7,000	250,000	75,000	2,500	72,500
Oakland, Calif.	605	950	285	----------	285
Oklahoma City	400	28,000	8,400	3,200	5,200
Omaha, Nebr.	410	26,795	8,039	4,400	3,639
Orange Co., Calif.	1,250	36,560	10,968	3,929	7,039
Philadelphia, Pa.	2,000	20,000	6,000	500	5,500
Allegheny Co. (Pittsburgh)	1,200	98,775	29,633	98	29,535
San Diego, Calif.	993	55,561	16,668	2,921	13,747
San Francisco, Calif.	750	11,500	3,450	1,090	2,360
Seattle MSD	875	131,000	39,300	5,988	33,312
St. Louis MSD	1,500	100,000	30,000	6,000	24,000
Minneapolis-St. Paul	1,366	30,282	9,085	3,274	5,811
Washington, D.C. SSC	1,000	67,931	20,379	4,062	16,317
Wichita, Kans.[1]	285	5,655	1,697	137	1,560
Total	47,532	1,582,855	474,886	92,393	383,678

[1] These data as of September 1970 and April 1971.
[2] Negative value not appropriate.

WITNESS

JAY H. LEHR, EXECUTIVE DIRECTOR, NATIONAL WATER WELL ASSOCIATION

Mr. BAUCUS. Next we have Jay H. Lehr, executive director, National Water Well Association.

Mr. LEHR. I flew in from Columbus, Ohio, this morning. I am glad to make it.

I have a formal statement for the committee.

Mr. BAUCUS. We will place it in the record.

[The statement follows:]

On December 17, 1974, President Gerald Ford signed the Safe Drinking Water Act into law. Now in mid-May, 1975, an analysis of the first 150 days of this legislation can be a valuable exercise in attempting to consider the law's potential value during the remainder of this decade.

The story began in 1970 when heated debate was developing over the Water Pollution Control Act which was intended to cleanse the nation's waters. Unfortunately the oil and gas industry was waging a successful battle to exclude underground water from the jurisdiction of that legislation.

Recognizing the near hopelessness of the situation, many in the water supply field turned their attention to a new bill entitled the Safe Drinking Water Act. By emphasizing to the congressional leaders back in 1970 that: 1) no apparent protection of ground water was to be achieved by the pending Water Pollution Control Act (which ultimately passed in 1972 with only slight mention of underground water) and 2) that 1/2 of our U. S. drinking water came from underground sources, we were able to bring about some legislative attention to the need for protection of both drinking water at the tap and the source of half of that water which is the underground.

The Safe Drinking Water Act went through a long evolutionary process during the intervening four years with the attention to ground water problems periodically increasing then decreasing through a series of annual Congressional hearings in the House of Representatives and the U. S. Senate.

In the closing months of 1974, however, numerous stories of polluted drinking water came to light which finally convinced the Congress of both the need for the Safe Drinking Water Act in general and a section of the act on ground water protection in particular.

And so the bill became law thus giving the Federal Government its first opportunity to direct a program to protect our nation's drinking water and its ground water resources. Prior to the bill's passage there were ample but minority voices in the water supply industry who opposed any Federal intervention into this area. Some of that opposition still exists with the belief that the legislation will result in just another devastating debacle where Federal mismanagement ends in the dumping of the baby along with the dirty bath water. And true it is that such are the frequent results of the best laid plans of mice and men when processed by the Congress and left to the Executive Branch of the government to implement and administrate.

The reason for the recurring disasters often produced by well intentioned legislation is that once a bill becomes law, the public loses its representation. The Congress goes on to other matters and except for infrequent oversight hearings in the House and Senate the Federal Administration made up of career bureaucrats and tenured civil servants take over.

Were it possible to write laws with true precision there would be little problem as its reading and subsequent implementation would be straight forward requiring little or no question of interpretation of the language of the law or the intent of the Congress.

But alas, this is earth peopled with fallible men, not heaven inhabited by perfect angels. And so while advanced mathematics and theoretical physics

may achieve precise solutions to problems, man's written language still leaves much to be desired as an exact form of communication. Herein lies the problem - namely that while the administrative agencies of the Federal Government were designed to implement the decisions of the people acting through the Congress, these agencies were not designed for, but frequently end up making the most important decisions of all, long after Congress is out of the picture and the people out of a voice in self government.

But such will likely not be the case with Public Law 93-523 (The Safe Drinking Water Act of 1974) because the Congress in its wisdom saw fit to write a new song with an old theme. They established a 15-member National Drinking Water Advisory Council to work with the U. S. Environmental Protection Agency in the implementation of the bill. The mandate from the Congress calls clearly not for a group of interested citizens to place a ceremonial rubber stamp on the activities of our non-elected administration officials, but rather for 15 knowledgeable and involved representatives of all segments of the public to guide the EPA in its interpretation and implementation of a law passed for the benefit not for the detriment of the people.

True, the idea of a citizens' advisory council is not new but the way in which it is working this time is quite unique. First the Congress specified that the Council be composed of persons with direct knowledge of the nation's water supply problems and that 5 be chosen from representatives of state and local government, 5 from private organizations directly involved in water supply and that 5 be public citizens with an independent interest in the subject.

Second, the U. S. EPA after selecting the 15 Council members according to the wishes of the Congress pledged its sincerest cooperation in working with and for the Council toward the attainment of an implementation program which would advance the belief of the public in the workability of the American Federalist system.

That is to say EPA recognized early in the first 150 days that this time their program for implementation of an environmental law must satisfy the needs and desires of the states, localities and individual citizens if there was to be hope for success. In the Clean Air Act of 1970 and the Water Pollution Control Act of 1972, the U. S. EPA tried unwisely to play big brother to the whole country in deciding that by some power vested in it, it knew what was best for the helpless unwitting public whose environment was being fowled by some evil arch enemies. What they never came to grips with was Pogo's early revelation that environmentally speaking "We have met the enemy and it is us." Thus in protecting us from ourselves EPA was manhandling our lives and our ability to govern ourselves at the local and state level.

Admitting to little or no good sense on the part of those lower echelons of government it (U. S. EPA) called all the shots in a dictatorial manner which created hostility, ill will and an unfortunate backlash which prevented the development of the necessary spirit of cooperation required for the ultimate achievement of these environmental improvements.

This time around the U. S. EPA from its Administrator Russell Train on down to each assistant and deputy administrator as well as its division and branch chiefs and their staffs has pledged and already partially fulfilled its intention to depend heavily on the feeling of the National Drinking Water Advisory Council as the voice of the people in an experiment of self-determination and self-government.

During the first 150 days EPA has proposed drafts of drinking water standards and underground water protection regulations. Public hearings have and will continue to be held. The Council has been asked to digest the reactions, criticisms and suggested revisions put forth by the public at large, their own colleagues, neighbors and professional associates and then develop a consensus of opinion for use by EPA in revising all standards and regulations for the benefit of the public.

And so far it's working. The Council has had the undivided attention of Mr. Train and his Assistant and Deputy Administrators with their supporting staffs at its meetings and in the interim periods of intensive study. They have proven under fire that this time the public will be properly served.

As Rome was not built in a day, the protection of our drinking waters and their underground sources will not be achieved tomorrow or even next year, but as a journey of a thousand miles begins with the first step, the path of the Safe Drinking Water Act will hopefully be marked by small but determined steps all in the right direction. Success will come in a time frame determined by the practical ability of state and local government to achieve necessary change with adequate Federal support in the form of money, research capability and training programs.

Examples of this new look in the operation of EPA are many. At the philosophical level one can site the comprehensive strategy paper being produced by EPA's Office of Planning and Management which describes the intended guidelines to be followed in the implementation of PL 93-523. It says brilliantly perceptive things about Federal-State relationships of which the following four paragraphs stand out as a shining example of a new awareness:

> "The importance of involving the States to the maximum extent possible in the development and implementation of the Safe Drinking Water Program cannot be over-emphasized. The successful accomplishment of the majority of the program objectives will, in large part, be dependent on the enthusiastic acceptance of program responsibility by a majority of the States.
>
> EPA's past experiences in programs similar to that required by the Safe Drinking Water Act have shown that neither the willingness nor the ability of States to assume their share of responsibilities can be taken for granted. To foster that ability and willingness, EPA must structure a system of both tangible and intangible incentives. These incentives must be directed at reducing obstacles which States will likely face in developing a capacity for implementing the program. These obstacles include but are not limited to:
>
> > Lack of funds; lack of trained personnel; distrust of Federal Programs; misunderstanding of the program including the need for a national safe drinking water program, the objectives of the program, and the role states are expected to play.

The degree to which EPA is able to overcome these obstacles will in a large part determine the success it achieves in accomplishing the important goal of fostering an effective Federal-State partnership for the implementation of the major programs under the SDWA."

The strategy later concludes with eleven basic principles for implementation of the Safe Drinking Water Act which should become a Federal Bill of Common Sense in implementing all legislation. They too bode well for the future of Federal-State relations:

"1. Public health considerations deserve highest priority.
2. The worst problems will be given first attention.
3. Take cost into consideration in all decisions made in the Safe Drinking Water Program.
4. Encourage State and local participation in decision-making.
5. Reduce need for massive changes in current state operations.
6. Place maximum financial burden for implementation of regulations on the ultimate users of drinking water except as provided by State law.
7. Encourage public participation in all deliberations and decisions.
8. Require adequate attention to the environmental impact of decisions made under the Act.
9. Decentralize decision-making and operational responsibility for the Act to the EPA Regional Offices and to the State and local governments to the extent practicable.
10. Keep paperwork and red-tape to the absolute minimum.
11. Utilize existing Federal and State resources."

I strongly believe that the people of America whom EPA serves will relate positively to these principles and begin to acquiesce in their latent hostility toward this new federal program.

In relation to ground water protection unlike earlier surface water programs the EPA is chosing to direct the states to address their problem in a flexible manner rather than in a specific "by the numbers" method. While it is clear that the Congress intended the federal government to insure that our underground sources of water be protected from pollution, the U. S. EPA recognizes that the states must be allowed the maximum flexibility in addressing their own problems. It appears that for the present, EPA will only specifically regulate the direct injection of wastes into the underground through deep wells, a process that all agree clearly requires quick and detailed attention.

There are, however, many other activities which have a potential for polluting underground water; these include landfills and dumps, waste piles and stock piles, animal feed lots, fertilizers, pesticides, accidental spills, disposal of waste water sludges, highway salting, surface water infiltration, air pollution, holding ponds and lagoons, septic tanks, storage and transmission facilities, drainage wells and sumps, artificial recharge, oil and

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gas development, water supply wells, exploratory and abandoned holes, mining and overdevelopment. The EPA will likely direct the states to regulate these activities by rule. This is a legislative way of telling the states to address their problem in these areas, study them, determine their extent and institute suitable regulation to meet their individual needs. While the Federal Government will ultimately review and advise the states on the general acceptability of the state plans based on its knowledge and expertise gained from research on the subjects and experience with the broad national problems, it will not dictate arbitrary requirements for the states to institute, often against their own better judgments.

Being even more specific the National Drinking Water Advisory Council has actively processed commentary on the proposed drinking water standards and then requested and received approval from EPA for significant changes in the initially proposed standards. One such change has been the planned elimination of a turbidity standard and subsequent turbidity monitoring for underground water sources. This was a direct result of a careful collection and study of data of ground water sources in regard to the importance or lack thereof of turbidity as a factor in the health of the users of ground waters as a drinking water source. It was found that while the presence of high turbidity in surface waters may frequently presage biologic pollution, this connection rarely if ever occurs with ground waters which may often have higher but innocuous turbidity.

Another area of previous unconcern on the part of EPA had been rural water problems. Studies of existing inadequacies in rural water needs exposed by the National Demonstration Water Project and the Commission on Rural Water have lead to the requirement of a rural water survey in the act. This project appears now to be getting ample attention from EPA, again with the welcome guidance of the Council.

And so it goes with the new law which may spell the beginning to a better and more successful way of utilizing a federalistic system to implement beneficial laws in our 50 states and 5 territories. Hopefully this law, in which all water supply people have such a vested interest, will become a model for the implementation of future legislative forays into such sensitive areas as occupational safety and consumer protection.

Some skeptics may say that this writer is a dreamer, an ignorant optimist and a dupe of the Federal bureaucrats, and surely as night shall follow day, if we continue to look for the worst, we will succeed in finding it. But if we build on those glimmers of hope and understanding so too may we find at last that our government can and will work the way our founding fathers envisioned it 200 years ago. And like Pasqual, before us, if we are wrong in calling for a spirit of optimistic cooperation between the Federal and State governments we will only have wasted some good will and good intentions, but if we are right we will have set the stage for a new and brighter tomorrow.

And so this is the picture as it appears today. An optimistic picture but as with all things, one not without problems.

While the leaders of EPA see their duty clearly in regard to winning the confidence of the states there are still some within EPA who are hesitant to relinquish their power over the states. Thus, not all regulations being proposed under PL 93-523 will be initially suitable to the states, without some revision.

Then too, while research and training are the most important areas in which EPA can make a contribution, they still lack significant financial and personnel support from EPA.

EPA has the attention of the public now and it has the desire to make 93-523 work. It will however be impossible to carry through the excellent plans set forth by the Congress in the Safe Drinking Water Act unless adequate funds are pledged to the program.

Let's face it, it is apparent that the President will get his requested $400-500 Million for re-settlement of Vietnamese refugees. In comparison only $10 Million has been requested for division among the 50 states and 5 territories for their entire drinking water programs. That is less than $200,000 per state.

It will get us started but it may not be enough to keep us going. We have an opportunity to build back the trust both EPA and Congress have lost from the states due to the problems which resulted in the implementation of the Water Pollution Control Act of 1972. There is no question that EPA did a poor job of carrying out the wishes of the Congress in the legislation. But the Congress must share some of the responsibility for the law being difficult if not completely unworkable. At the very least the Congress must recognize that a tremendous gap has been opened between federal and state efforts to cleanse our water.

Here is a chance to close that gap. Money must be appropriated for the states with few if any strings attached. The drinking water and underground protection programs must begin at the state level building back to the federal government who shall provide money at the outset and then research and training where such needs become evident.

In this way only can we hope to firmly construct a well integrated, nationally coordinated environmental program.

Perhaps the best word to describe the new approach to the handling of the federal-state environmental program is diplomacy. We are used to employing diplomacy in abundance in our foreign affairs, but have somehow escaped its application in internal affairs where it is sorely needed. In any case let us not dwell on the past but rather begin now to apply this new environmental diplomacy and prepare at last to reap the rewards of a successful program.

The President has asked for $10 Million in state program grants. It is more than OMB recommended but far less than what is necessary.

I have come here today as a citizen and an industry leader. I am one who is frequently disenchanted with federal programs, and yet I believe we may at last have a federal program that can work effectively and efficiently.

The program needs adequate financial support from the Congress. Daily in the newspaper we see financial requests in the billions. I am pleading here for tiny fractions of such sums. But fractions having far greater impact on our 220 million citizens than programs requiring a thousand times more money such as the defense budget.

In closing, the EPA budget recommended by the President will indeed get us started, but it will take twice that amount, spent at the state level, to keep the program moving through the coming fiscal year.

Mr. LEHR. I come to you wearing three hats, executive director of the National Water Well Association, a professional society and trade association of ground water geologists and about 100,000 people involved in finding underwater drinking supplies. I also represent the Commission on Rural Water which is a semipublic group under community service administration which focuses attention on rural water problems.

Finally, and most important, I am a member of the National Drinking Water Advisory Council which was established by the Safe Drinking Water Act.

This is a 15-member council established under the act that Mr. Train appointed to advise the EPA in the implementation of the Safe Drinking Water Act. It is that aspect of the budget that I want to speak briefly about.

The council is made up of members who have a long history in water supply problems and also an awareness of the problems that have fallen to the Water Pollution Control Act of 1972 which has created tremendous hostility and animosity among the States. The EPA recognized that the rigidity and lack of flexibility with which they have managed the programs has not worked effectively and has made a complete turnaround and decided to be very flexible and use in fact diplomacy in dealing with the States who, they now recognize, can deal with their water problems better than the Federal Government.

We are very pleased with the way this is working and feel perhaps we are continuing to give the public representation, a voice in the implementation of the act.

Where the Congress gives the public a voice in the passage of legislation, we are now continuing that voice in the implementation with the executive branch. We have seen the new attitude of EPA. Perhaps the first place to show it is that they have come out with a strategy paper on the implementation of the act. I have a draft copy I would like to submit. It has not yet been approved by Mr. Train or Mr. Quarles but is being presented to them. It shows a whole new outlook, I think, of very conservative and efficient management of a Federal program that warrants support.

It is a marvelous attitude on the part of EPA.

The Council has effectively been able to bring the public's attitudes on regulations that are being proposed, on drinking water standards that are being proposed and are seeing that EPA is listening to what we have to say. We think this is marvelous.

An area that has been previously overlooked, that is now getting attention, is the area of rural water. The act calls for a rural water survey. EPA has come to us and sought our advice on the administration of the survey. Part of my written statement does include a major section of the rural water survey. I will not read this, but I would like to submit four brief pages specifically on the rural water survey for inclusion in my testimony if you would.

Mr. BAUCUS. We will put these in the record.

[The information follows:]

RURAL WATER SURVEY

Another area of previous unconcern on the part of EPA had been rural water problems. Studies of existing inadequacies in rural water needs exposed by a

national demonstration water project and the Commission on Rural Water, led to the requirement in the Safe Drinking Water Act of a rural water survey. The Environmental Protection Agency was entrusted with the responsibility for a "survey of the quantity, quality, and availability of rural drinking water supplies" with particular attention to health problems.

In fulfilling this responsibility, EPA intends to gather water quality and other data regarding a random sample of rural water supplies, both individual and community. Although the exact nature of the information-gathering network has apparently not yet been determined, tests will be conducted of thousands of samples drawn from 100 "primary sampling units." Other information is to be obtained by a questionnaire administered to community residents.

The proposed EPA-directed study should produce valuable information regarding the magnitude of the Nation's rural water problem. No national study of this scope has been attempted before, and when it is completed, we should know more than we ever have about the extent of the problem and the areas where needs are the greatest.

As helpful as it will be to have definitive data on the extent of the problem, this study, if conducted as described, will not help us move more quickly to a solution of the problem. We need to know not only how inadequate facilities are but what factors contribute to the problem. Congress and the States need to know the pressure points in the rural water delivery system that they can affect.

A survey of the quantity and quality of rural facilities can be used to call attention to the problem, but it is unlikely to establish a nexus between the problem and a prospective solution. This is apparent from the history of recent rural water studies. A Farmers Home Administration survey, for example, estimates the number of communities needing water systems and the probable cost of providing them. But it does not really explain why so many communities are in need or how the money might be obtained to help them. Five years after completion of the study, the problem still exists.

The "why" of rural water system performance is, of course, a complicated matter. We know that there are often technical problems that contribute to poor performance. There has been a shortage of chlorine for water treatment in recent years, for example. Or ground water sources, on which a majority of rural communities rely, may be contaminated or hard to tap. There are also perceivable environmental factors that appear relevant, such as the presence of a mining industry, flooding or other natural disasters, drought or freezing, et cetera. By and large, however, experience indicates that these are problems that technology can solve, if the delivery system for water facilities allows technology to be properly brought to bear. The technical problems that appear in rural water systems, particularly poor water quality, are but symptomatic of deeper institutional problems. By "institutional" we mean the policies and practices forming the framework within which water systems must operate. In other words, if a system produces poor quality water because it temporarily runs out of chlorine for treatment, this is a technical failure; if the system's financial setup does not allow it to buy enough chlorine so that it regularly runs out, the failure is institutional.

There is thus the very great danger that even the most definitive rural water quality survey will not impact national policy unless it considers significant institutional issues. What we need is new data on a national basis regarding how we can affect water system performance. The proposed rural water survey provides an unparalleled opportunity for obtaining these data at relatively little additional cost. This can be done by adding a policy-oriented component to the survey, a component designed to generate information about the relevant issues.

There is strong presumptive evidence that water system failures can often be traced to institutional defects. In other words, there are flaws in the way systems are developed (the financing package, the construction design) and supported (operation, maintenance). The contention is that these factors are related to overall water system performance, that they are an important part of the "why," and that more data regarding this factor is needed.

In the first place, systems are not always designed to meet the needs of the population they serve. They may be overdesigned so that a small community is provided with a "Cadillac" system it can ill afford; they may be underdesigned so that water quality and pressure are constant problems. Where the original design is correct, later expansions may be poorly planned and result in an overburdening of the system.

Even when design is not a problem, operation and maintenance can be. This is a three-cornered matter involving rates, financing arrangements, and operating expenditures. The water rates charged and the bills collected by the water system must, in the long run, support all necessary expenditures—debt service, operations, maintenance, equipment replacement, et cetera. To keep rates reasonable (and bills collectible), systems must often devote too few resources to operation and maintenance, including equipment replacement. This is because the original financing for community facilities commonly underestimates the need for a cost of good operation and maintenance. Systems are thus saddled with large loans, debt service eats up a sizeable portion of a system revenue, and the systems spend $1 per connection per month for operation and maintenance when the figure should be $5. Not surprisingly, the systems deteriorate in a few years and the technical failures, such as impure water, occur.

A further problem is that the people who operate rural water systems are often poorly trained for the jobs they do, counteracting the beneficial effects of both good design and adequate support arrangements. This refers not just to technical plant operators—although this is a problem—but to the people who make policy decisions for the systems—utility district boards of directors and even municipal officials. Although management ability is typically in short supply in rural areas, this fact is usually completely overlooked in planning a water system, and funds for training programs are usually not provided.

All these matters, which are institutional rather than technical need to be studied. With more data on these we may be able to demonstrate, not only that technical problems exist, but that there are institutional changes that could improve rural water system performance. The rural water survey authorized in the Safe Drinking Water Act provides the opportunity for such study. The project appears to be getting ample attention from EPA, again with the welcome guidance of the Council.

Mr. LEHR. In the area of rural water, I brought to you a bookshelf that has been written to you by members of the Commission To Collect Data on the Severe Problems of Rural America on Water and Waste Treatment where we find the problems very serious. I have just brought this and thought it would make a good library for this committee.

I think in coming years you can be looking more and more at rural problems with your work with HUD and other agencies.

Mr. BAUCUS. Thank you.

Mr. LEHR. Finally, then, I can sum up my main purpose. That is that we feel the current appropriation in the President's budget for the drinking water program for State grants in the drinking water program right now is about $10 million. That is to be divided between 50 States and 5 territories. It comes out to be less than, of course, $200,000 per State. Now that is enough money to get a State moving but I doubt that it is enough to keep them moving through fiscal 1976.

So I think finally there appears to be a Federal program being operated very strongly for the people that is going to develop an air of cooperation between the Federal Government and States that want an increase in funding to really make it work.

I think that the budget for State grants in water supply could easily be doubled and similarly the area of research and training that will be done at EPA which is the primary important responsibility of the Federal Government in supporting State programs should also be increased.

More often than not I find myself testifying against appropriations where a Federal agency is not doing a job properly and is not spending current funds properly. Here is a situation where I think we are going to have a model program of the Federal Government working with the States in a very adequate, cooperative, diplomatic way.

I think the program deserves your consideration in the optimum possible funding. That summarizes my comments.

Mr. TALCOTT. Thank you for the books for our library.

Mr. LEHR. You are welcome. We put about 4 years of work in them. This is a kind of quasi-public-private group chartered under OEO and carried on by CSA and is producing material on rural water problems hoping that people will tackle them.

Mr. BAUCUS. You said on page 6 that the President requested $10 million which is more than OMB recommended.

Mr. LEHR. We know about the infighting over this and OMB was opposed to that much. That is somewhat hearsay but I think it is fairly clear that Mr. Train worked very hard with President Ford to get $10 million requested.

Mr. BAUCUS. Thank you.

Mr. TALCOTT. That is the way our system works. Sometimes OMB is for higher and sometimes they are for lower. That is part of our system, trying to work out the compromises.

Mr. LEHR. I recognize that.

Mr. BAUCUS. Thank you very much. We appreciate your testimony.

Mr. TALCOTT. Half of our water comes from wells. I think that is a new statistic. Everybody thinks it comes from rivers or rain.

Mr. LEHR. Twenty percent of the total water supply is from wells but half of the water we drink is from wells.

Mr. TALCOTT. Is there anybody in the room representing a newspaper or public interest?

Well, we have somebody from the press. That is unusual. Thank you for coming.

Mr. BAUCUS. The committee stands adjourned.

VETERANS' ADMINISTRATION

STATEMENT OF E. H. GOLEMBIESKI OF THE AMERICAN LEGION

Mr. BOLAND. The committee has received a statement from Mr. E. H. Golembieski, Director, National Veterans Affairs and Rehabilitation Committee, the American Legion, regarding the VA budget. The statement will be placed in the record at this point:

[The statement follows:]

Mr. Chairman and members of the subcommittee, we appreciate the opportunity given the American Legion to express its views on the Veterans' Administration budget authority and appropriation requests for fiscal year 1976.

Although the 1976 budget estimate totals $16.424 billion—the highest in the history of the agency—we are convinced that it is deficient in three areas.

A comparison of appropriations and estimates for fiscal year 1976 with those for 1975 indicates that requirements have been increased for general operating expenses, medical care, and construction (major and minor projects). Notwithstanding this fact, we believe them insufficient if the Veterans' Administration is to effectively administer the laws relating to the relief and other benefits provided by the Congress for veterans, their dependents, and their beneficiaries.

At this point, our statement will be directed to the three major appropriation fund accounts of concern to our organization.

GENERAL OPERATING EXPENSES

This appropriation account finances all nonmedical administrative costs of the Veterans' Administration. These are: (1) General Administration, consisting of the Office of the Administrator and eight agency-level staff offices; (2) the

Department of Data Management; (3) the Department of Veterans Benefits; and (4) the National Cemetery System.

Our concern under this account is directed to the projected reduction in average employment in the Department of Veterans Benefits. This Department, one of four major elements of the Veterans' Administration, is responsible for providing direct benefits and services, except medical, to veterans, their widows and beneficiaries. Through its 58 regional offices, the Department determines eligibility and adjudicates all claims for compensation, pension, educational assistance, housing loans, and insurance. In addition, these regional offices provide veterans services at 72 locations, as well as through the veterans representative on campus program for veterans pursuing education in institutions of higher learning.

As proposed in the fiscal year 1976 budget, the Department of Veterans Benefits average employment will reduced as follows: 238 in veterans services; 130 in compensation, pension, and education; 68 in loan guaranty; 15 in insurance; and 144 in other services.

Information from the Veterans' Administration and from department service officers of the American Legion indicates that the economic recession and the expanded and improved educational assistance program have increased claims for benefits and services. A reduction of 595 in average employment will further aggravate the backlog now existing in VA regional offices, and seriously impair the quality of end products in this essential service.

We urge sufficient funding in general operating expenses to not only retain the 595 employees but also to add approximately 1,100. As you know, Mr. Chairman, organizations, such as the American Legion, do not have access to agency budget workbooks; consequently, these figures are based on the Administrator's request of the Office of Management and Budget.

MEDICAL CARE

Appropriations for this budget item provide for medical care and treatment of veterans in Veterans' Administration hospitals; nursing bed care units; domiciliaries and outpatient clinics; contract hospitals—Federal and non-Federal; State domiciliaries, nursing homes and hospitals on a grant basis; contract community nursing homes; and through the hometown physician and dentist on a fee basis. This appropriation also is a source of funds for training medical and dental residents and other professional health care and administrative personnel to meet VA Department of Medicine and Surgery needs, and those of the Nation for scarce health care personnel.

A continuing growth in the eligible veteran population is placing an increased demand on the Veterans' Administration for medical and hospital care, and for the specialized services in VA hospitals and clinics.

The special survey on the level of quality of patient care at Veterans' Administration hospitals and clinics resulted in a series of recommendations to improve the quality of care in VA hospitals and clinics. For fiscal year 1976, the survey task force recommended a total staffing increase of 10,198.

According to the 1976 fiscal year budget estimate, the administration projects an increase in average employment of 9,448.

We urge your subcommittee's serious consideration of the 1976 estimate submitted to the Office of Management and Budget—$3.851 billion—as a substitute for the Executive Office 1976 estimate of $3.677 billion.

CONSTRUCTION—MAJOR AND MINOR

This appropriation provides for constructing, altering, extending, and improving of any VA facility including planning, architectural and engineering services, and site acquisition.

The special study of the quality of patient care, referred to earlier, included recommendations for construction with an estimated cost of $308.9 million.

As submitted to the Congress, the VA 1976 budget estimate for major and minor projects is $403.9 million.

In its evaluation of the construction appropriation request, the Executive Office determined that certain projects that were under development and were being requested in the fiscal year 1976 budget had equal or greater priority than those in the quality of care survey. For budget purposes, it was said that these items are considered as a part of the funding requirement for the quality of care survey.

In view of the fact that the construction recommendations of the special survey report were needed to correct physical facility deficiencies at VA hospitals, and

which were not in the 1975 program, we urge this subcommittee's consideration of restoring to the budget the amount of the 1976 VA estimate submitted by the Administrator of Veterans Affairs to the Office of Management and Budget.

In submitting the above recommendations on these three items, we were not unmindful of the large budget deficiency projected for fiscal year 1976.

In conclusion, Mr. Chairman and members of the subcommittee, our organization extends to each of you its sincere appreciation for your willing response to the diffiicult task presented each year of assuring, through the budget process, that the Nation shall continue to honor its commitment to the veteran and to his dependents and survivors.

We thank you for receiving our views.

SELECTIVE SERVICE SYSTEM

STATEMENT OF JAMES R. WILSON OF THE AMERICAN LEGION

Mr. BOLAND. The committee has received a statement from Mr. James R. Wilson, director, National Security Foreign Relations Division, the American Legion, regarding the Selective Service System's budget. The statement will be placed in the record at this point.

[The statement follows:]

Mr. Chairman and members of the subcommittee, I am deeply grateful for the opportunity to present the American Legion's views on the fiscal year 1976 appropriation for operation of the Selective Service System.

On the basis of Resolution 197, unanimously adopted by our last national convention, we urge the members of this committee to approve the very modest request of $41.7 million. The full text of Resolution 197 reads as follows:

Whereas, the climate of world affairs is unsettled and needs the stabilizing influence of a militarily strong America; and

Whereas, our Nation must always have a dependable means of manning its armed forces with personnel capable of operating sophisticated modern weapons; and

Whereas, maintaining the authorized strengths of the armed forces and the Reserves has proven difficult even with drastic reductions in the active forces; and

Whereas, the Selective Service System, whose drafting authority terminated on June 30, 1973, may be called upon at any time to resume full scale operations, and must be kept intact to secure our Nation's defense: Now, therefore, be it

Resolved, by the American Legion in National Convention assembled in Miami Beach, Fla., August 20–22, 1974, that we request the Congress to maintain the Selective Service System with adequate funds for its operation.

In these uncertain times, we believe it is a wise investment to maintain the Selective Service System on a standby basis prepared, if needed, to provide a steady flow of manpower to expand our military forces should the need arise. The one vote margin by which the Selective Service Act was approved just prior to America's entrance into World War II, should give an indication of the difficulty of securing passage of legislation under emergency conditions.

In our opinion, the Selective Service System has been reduced to its lowest operating level and further cuts would seriously hamper its ability to fulfill the minimal responsibilities it is expected to carry out under existing law.

The American Legion is aware that by volunteer means the military services have been able to maintain authorized manpower levels. However, we feel some part of the success of the all-volunteer force must be credited to present economic conditions and to the cut in our military forces from a high of 3½ million to its present size of just over 2 million.

Some opponents of Selective Service are for completely eliminating the system. They would have us believe that at such time as our Nation might need to rapidly mobilize that Selective Service would immediately begin to induct men into the Active Forces. We do not agree with this type of fallacious thinking. If our Nation has to revert to involuntary service or a general mobilization, it would take about 6 months to gear up to full operation.

In summary, the American Legion believes the maintenance of a functioning Selective Service System should continue as one of the cornerstones of our Na-

tion's military manpower policies. The continuation of a system which can move men into the "pipeline" within 30 days demonstrates that the United States is still willing to honor our commitments throughout the world.

I thank you for the opportunity to present our views on this important legislation.

VETERANS' ADMINISTRATION

STATEMENT OF FRANCIS W. STOVER OF THE VETERANS OF FOREIGN WARS

Mr. BOLAND. The committee has received a letter and a statement from Mr. Francis W. Stover, director, National Legislative Service, Veterans of Foreign Wars, regarding the budgets of the Veterans' Administration and the Selective Service System. The letter and statement will be placed in the record at this point.

[The material follows:]

VETERANS OF FOREIGN WARS
OF THE UNITED STATES,
Washington, D.C., May 15, 1975.

HON EDWARD P. BOLAND,
Chairman, Subcommittee on HUD-Independent Agencies, Committee on Appropriations, House of Representatives, Washington, D.C.

MY DEAR MR. CHAIRMAN: Please find enclosed copy of statement in behalf of the Veterans of Foreign Wars with respect to the fiscal year 1976 budget request for the Veterans Administration.

It is noted that your subcommittee also has a request for funds to continue the Selective Service System. Previously, the Veterans of Foreign Wars has had annual resolutions for the continuance of the Selective Service System as a standby agency in the event there is an urgent and unexpected need to increase our armed forces. In addition, our previous resolutions indicated apprehension on the part of many that the All-Volunteer Armed Forces concept might not prove workable, and it would be necessary to fall back on some form of compulsory military service. In such an event a standby Selective Service System would be most necessary.

Again at our most recent national convention, which was held in Chicago, Ill. last August, the delegates, representing more than 1.8 million members, adopted a number of resolutions regarding legislation with respect to our armed forces. One of the provisions in an omnibus resolution, unanimously approved by the delegates, identified as No. 413 entitled "An American Defense Posture Second To None," reads as follows:

"The United States maintain a viable and effective Selective Service System, specifically to include the restoration of authorization of the President to induct civilians into the Armed Forces, so that in time of national need, nonvolunteer forces may be raised quickly and effectively with equity."

Accordingly, Mr. Chairman, the Veterans of Foreign Wars supports adequate funds and personnel to continue the Selective Service System as a standby structure in the event a national emergency or war should occur at some future time, which will require immediate, overnight mobilization to meet the contingency.

It will be deeply appreciated, Mr. Chairman, if a copy of my statement in support of the Veterans Administration budget request for 1976 and a copy of this letter, which states the Veterans of Foreign Wars position on the Selective Service System, be made a part of the hearing record.

Sincerely,

FRANCIS W. STOVER,
Director, National Legislative Service.

Enclosures.

Mr. Chairman and members of the subcommittee, thank you for the opportunity and privilege of presenting the views and recommendations of the Veterans of Foreign Wars of the United States with respect to the 1976 budget request of the Veterans' Administration.

The more than 1.8 million members of the Veterans of Foreign Wars are represented by veterans of all wars going back to and including the Spanish-

American War. Our current membership has over 450,000 members who served during the recently concluded Vietnam era conflict.

The single most important bill passed by Congress each year is the appropriation bill containing the money to operate veterans programs, which are administered by the Veterans' Administration. The VA budget request for fiscal year 1976 is described as the largest ever. The total dollar amount will approach $17 billion.

Much of the appropriation of the VA is earmarked for monthly benefit payments, such as compensation for the service-connected disabled, DIC payments for widows, orphans, and dependents of service-connected, deceased veterans, pension payments to veterans and to their dependents, who meet a very strict economic means test, GI bill and educational training assistance checks to Vietnam and cold war veterans, and orphans, wives, and widows of permanently and totally disabled, service-connected veterans or, if deceased, their survivors.

While there are many veterans and their dependents who receive monthly benefit checks from the Veterans' Administration, I hasten to add that the great majority of veterans do not receive any money or assistance from the Veterans' Admiinstration. The latest statistics indicate that there are over 29 million veterans. Together with their dependents, there are more than 98 million Americans who have a veteran in their immediate family. Ninety-eight million Americans represent 46 percent of our population of about 213.7 million. It is accurate to state, therefore, that veterans programs are of immediate and personal interest to approximately half of all living Americans.

The program involving more veterans than any other is our hospital and medical program in the VA's 171 hospitals. For example, our 1.8 million members plus more than 500,000 members of our ladies auxiliary have far more than just a passing interest in VA hospitals and other medical facilities; in fact, most have a proprietary interest in the VA hospital serving their local community. The VFW members are extremely active in VA hospitals. Many are recognized for their voluntary service with hospital patients through awards and citations given by the Veterans' Administration, which recognizes the significant contribution made by VFW members in improving the morale and well-being of patients.

The biggest problem this year, so far as the VFW is concerned, is the pay situation with respect to VA physicians and other medical personnel. It is realized that pay legislation for VA personnel is not before this subcommittee. The record shows the contribution made by this subcommittee over the years, which has enabled the VA to continue to provide high-quality care for veterans in VA hospitals; in fact, without the leadership of this subcommittee, one wonders what shape VA hospitals and its medical care system would be in today.

With respect to this year's VA budget, the VFW submits that the demands on VA hospitals have sharply incerased in recent months. Many veterans who have been unemployed have lost their health coverage protection provided by their employment. These veterans are now calling upon the VA when medical care is necessary. Many veterans during their enforced idleness are applying for additional hospital and medical care by the VA.

In a nonmedical field, the estimates for the number of veterans using the GI bill for VA education and training programs have been woefully underestimated, and more money will be needed to take care of the unexpected larger number of veterans who are going to school or taking training under the VA because of recession and unemployment.

Most distressing to the VFW is that the increased demands are causing a work overload in many VA regional offices. The VFW has been told by the Veterans' Administrator that a request has been forwarded to the White House for an additional 1,600 personnel. The 1,600 includes the anticipated loss of about 500 personnel in the VA regional offices due to attrition during the last fiscal year. Not only must the 500 be replaced, but an additional 1,100 employees are needed. This is because the Veterans' Administration requirement are being met by excessive overtime in VA regional offices, according to the information received by the VFW.

With respect to VA hospitals and medical care, the squeeze is on in many areas due primarily to continuing inflation. Admittedly, the VA medical and hospital budget is up in many respects. However, inflation has taken its toll.

The VFW has always strongly supported programs in the VA medical and hospital system, which, it is believed, is helping to make VA medical care second to none. In addition, some of these programs conducted by the VA are instrumental in recruiting and retaining VA medical personnel. Most important, some of these

programs not only help veterans but are making a significant contribution to improving the quality of medical care for all Americans.

Examples which readily come to mind are the research programs conducted by the VA. Some of the improvements and discoveries conducted with VA research funds have resulted in improving the health of all mankind. The so-called heart pacemaker developed in a VA hospital is an outstanding example. Another development is in the area of chemotherapy, which has practically made TB hospitals a thing of the past. Most recently, in March of this year, the Lake City, Fla., Veterans' Administration Hospital developed a new electronic approach to cancer diagnosis of the inside of the stomach, lungs, bladder, and other body cavities, using a color television monitor in conjunction with endoscopy, known as television-endoscopy.

Many do not realize that the VA's education and training program for residents, interns, nurses, and medical and health personnel makes a tremendous contribution to the welfare of all Americans. Most recent statistics indicate that over 73,000 were trained or educated during the past year. The construction budget for the VA also contains money for research and educational facilities.

The VFW hopes that this subcommittee will take note of the funds for these programs to assure that they will continue and not fall by the wayside or be severely curtailed because of rising costs during the coming fiscal year.

The VFW, therefore, supports the $4.2 billion requested by the administration for the VA medical and hospital program. We do, however, have qualms about the future because of continuing inflation and the high cost of medical care and services. The VFW is deeply disturbed at the exodus of doctors and other medical personnel, whose salaries are not competitive with persons in the same positions in other Government agencies. The Congress may pass legislation regarding medical pay increases by authorizing bonuses or other benefits which would require a supplemental appropriation request at a later date, if enacted into law.

In summary, Mr. Cairman, the VFW commends this subcommittee for its leadership over the years, which has provided the funding necessary to have the Veterans' Administration successfully carry out its mission of service to veterans and their families. However, without the leadership of this committee, it is doubtful that the administration would be doing the job Congress intended—for it is the Congress that responds to the pleas of veterans and their families regarding the cherished veterans rights and programs which Congress has approved over the years in recognition for service in the Armed Forces during a period of war or national peril.

The last American soldier left Vietnam on March 20, 1973. On May 7, 1975, the President formally declared by proclamation that the Vietnam era, which began on August 6, 1964, has officially ended.

The war will never be over, however, for hundreds of thousands—the survivors of those killed while serving in South Vietnam during the past decade, and the seriously wounded and their dependents.

The Veterans of Foreign Wars, therefore, wants the record to show that much of the increase in the VA budget this year is primarily caused by increases in compensation, pension and educational programs swelled by the generation of over 7 million veterans during the Vietnam era conflict. While inflation is another factor, we must not forget that the increased demands are also due to the hundreds of thousands of Vietnam veterans who are applying for and receiving other VA assistance, as authorized by the Congress.

Lastly, many who have served in America's wars in years gone by are also calling upon the VA for assistance—the granting of which is another way of saying to these veterans that America will never forget them.

Thank you for the opportunity of presenting these views in support of the budget request of the Veterans' Administration for fiscal year 1976.

HUD Comprehensive Planning Grants

LETTER FROM HON. HUGH L. CAREY, GOVERNOR OF THE STATE OF NEW YORK

Mr. Boland. The committee has received a letter from the Honorable Hugh L. Carey, Governor of the State of New York, regarding the 701 program.

The letter will be placed in the record at this point.
[The letter follows:]

STATE OF NEW YORK,
EXECUTIVE CHAMBER,
Albany, May 16, 1975.

Hon. EDWARD A. BOLAND,
Chairman, HUD-Related Agencies Subcommittee, Appropriations Committee, U.S. House of Representatives, Washington, D.C.

DEAR MR. BOLAND: I would like you to know of my support for fiscal year 1976 funding of the comprehensive planning assistance (701) program which, I understand, is now being considered by your subcommittee. Your interest in providing adequate funding for this important program is greatly appreciated, particularly in view of the administration's failure to include the 701 program in the fiscal year 1976 budget.

The comprehensive planning assistance program has been helping local governments in New York to plan and manage their resources so that Federal and State funds are fully utilized to achieve locally-determined objectives. The cities, towns, villages and urban counties in New York which qualify for assistance under the Housing and Community Development Act, for example, require substantial planning and management capabilities to enable them to prepare acceptable applications and to carry out complex projects.

The comprehensive planning assistance program is the only Federal program that is available to support diverse approaches to the problems local governments face; and it is unfair to expect our municipalities to utilize scarce title I (of the Housing and Community Development Act) funds to carry out planning and management studies in the face of overpowering needs for facilities that will increase job opportunities or satisfy basic community health and safety requirements.

It must also be noted that many local governments have initiated land use, housing and other planning and management studies in compliance with requirements which were added to the comprehensive planning assistance program last year. It makes no sense to cut off funds, in the very next year, to those communities which have been encouraged by the provisions of the Housing and Community Development Act to prepare land use and housing plans.

Recognizing the specific needs of our local governments, we have recently established a Division of Community Affairs in our Department of State. This State agency, under the direction of Secretary of State Mario M. Cuomo, is working with local elected officials to provide the management and planning assistance they require. Comprehensive planning assistance funds are vital to this overall effort because many of our municipalities lack the financial capability to undertake necessary planning and management work. As a result, there may be a tendency to bypass a rational approach to governmental management and proceed to deal with problems on an ad hoc basis, thereby incurring the risk of wastefulness, confusion and duplication. New York State already contributes significantly to local planning and management activities by providing one-half of the non-Federal share of project costs in cash.

In conclusion, I urge your support in providing an adequate level of funding for the comprehensive planning assistance program in fiscal year 1976, and I wish to thank your subcommittee for its initiative in conducting hearings on this important program. If you require additional information to justify the need for 701 funding in New York, please let me know.

Sincerely,

HUGH L. CAREY.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

STATEMENT OF CUSHING N. DOLBEARE OF THE NATIONAL RURAL HOUSING COALITION

Mr. BOLAND. The committee has received a statement from Mr. Cushing N. Dolbeare, executive secretary, National Rural Housing Coalition, regarding the HUD budget.

The statement will be placed in the record at this point.

[The statement follows:]

STATEMENT OF CUSHING N. DOLBEARE

The primary concern of the National Rural Housing Coalition is enactment of legislation and appropriations needed to provide rural people with decent housing at costs they can afford. While many tend to think of the "housing problem" as an urban one, the facts are that the incidence of overcrowded housing and housing without plumbing is far higher in rural areas. So is the incidence of poverty.

The Department of Housing and Urban Development is the primary housing agency in rural areas as well as urban. Its budget request (outlays) for 1976 is more than 12 times the budget of the Farmers Home Administration, which operates a series of relatively small-scale housing and community development programs in rural areas and communities with less than 10,000 people. Under the Housing and Community Development Act of 1974, 20 percent of community development funds and 20–25 percent of housing subsidy funds are allocated to nonmetropolitan areas. (Adequate and useful definitions of "rural" are hard to come by. Generally and somewhat loosely, rural is used as a synonym for nonmetropolitan. Unless otherwise noted, we shall follow this practice, with the important caveat that in 1970, more than 8 percent of the Nation's people lived in rural—or nonurbanized—portions of metropolitan areas.)

Rural people have suffered from inattention to their housing needs for generations. The crisis in homebuilding and mortgage financing which came to public attention last year, when housing starts plunged by more than a million units, has been endemic in rural areas. There have been fewer builders, fewer lenders, fewer consumers able to afford housing on the private market, and until Farmers Home Administration was forced to reactivate its housing subsidy program, fewer Federal housing subsidy programs.

The Rural Housing Alliance has estimated that there are some 2 million rural households who cannot afford to pay more than $20 each month for rent. Official census figures show that rural areas, with but 31 percent of the population, have over 40 percent of the poverty. A look at the other end of the income scale reveals an even more dramatic difference. The Joint Economic Committee has just issued a report noting that a $23,000 income is required to purchase an average house today. This, the JEC notes, is 15 percent of the population. But it cannot be much more than 6–7 percent of the rural population. In 1973, 11 percent of all urban families and 5 percent of all rural families had incomes above $25,000. Looking at it another way, in 1973 almost as many urban families had incomes above $25,000 (11 percent) as had incomes below $5,000. In rural areas, more than three times as many people (19 percent) had incomes below $5,000 as had incomes above $25,000 (6 percent).

These differences are significant, and need to be dealt with through a variety of changes in public policies. Housing is by no means the only program where rural people have been shortchanged: the pattern in housing is—as was made dramatically clear at the recent Rural America Conference—typical of the pattern of more Federal programs.

Our plea with respect to the HUD budget is twofold: First, we urge full funding of all authorized HUD programs. Second, we urge this Subcommittee by any means possible to call HUD's attention to the need to change its staff and program emphases if it is to live up to its responsibilities to rural people.

HUD has not, in our view, acted in good faith with respect to the program of greatest relevance and importance to rural people: conventional public housing. With the exception of a tiny self-help program which the administration is attempting to wipe out and a rent supplement program which the administration is refusing to carry out, the Farmers Home Administration has no capacity to meet the needs of the 2 million rural households who can pay no more than $20 for rent. Nor can the private market conceivably supply decent housing at this rent.

Yet HUD has available to it sufficient authorizations, under the U.S. Housing Act of 1937, for some 400,000 units and has asked budget authority for 200,000 more. This authority, with the exception of the specific set-asides for conventional public housing and Indian housing, can legally be used either for section 8 or for conventional public housing. Ever since the 1973 moratorium, HUD has periodically reiterated its intention to carry out prior commitments. The set-asides of the 1974 act were intended to provide for new commitments, yet HUD is using the 1974 act solely to cover prior commitments.

Secretary Hills recently testified that HUD will have no more than 75,000 section 8 units under contract this year, and will fall short of next year's goal. Nor have important steps been taken to make section 8 a viable approach for rural areas, by arranging for joint processing with Farmers Home. Allocating section 8 funds to rural areas doesn't build houses. Opening up the contract authority for conventional as well as leased housing might well do so where local, regional, or State housing authorities are operating in rural areas. There is some evidence that pubilc housing development can proceed more rapidly in rural areas than in cities. In the years before the freeze, for example, roughly 40 percent of new public housing starts were rural. Moreover, public housing can accomplish more in rural areas—a 50–100 unit project can make a major impact on the housing needs of a small town and can transform the housing conditions of many rural communities.

Because of the importance of housing subsidy programs to rural areas, the National Rural Housing Coalition is actively supporting legislation—introduced as H.R. 6240 in the House—which will, if enacted, make it possible to achieve the national goal of 6 million new or rehabilitated subsidized housing units in the 1968–78 decade. HUD should not only use its authorization for conventional public housing to the extent approvable applications are filed, but it should also move promptly to reinstate the 235 and 236 programs pending evidence that section 8 is viable.

We urge this committee to make available the full amount authorized for the 202 program for housing for the elderly and handicapped, and to press HUD to administer it affirmatively to provide housing in rural as well as urban areas. There are as many rural elderly people as there are people in any State except New York and California. Moreover, 81 percent of the 4.9 million elderly rural households have income below $4,000.

If one assumes that at least one-fifth of HUD's attention should be on rural areas—a fair interpretation of the Housing and Community Development Act provisions—then it should follow that one-fifth of HUD's staff should be assigned primary responsibilities in rural areas, and one-fifth of HUD's research funds should be devoted to rural needs and problems. Clearly, this is not the case.

Of the three studies related to rural housing cited by HUD in hearings before the Senate Housing Subcommittee last November, two had been started under OEO contracts and shifted to HUD along with OEO's $11 million research and demonstration budget. Instead of emphasizing rural needs and reaching out for ways to assist rural housing organizations, HUD appears to be doing the opposite. For example, despite a glowing review of its work from a private consultant commissioned by HUD, so far HUD has stated its intention not to refund the Housing Assistance Council for what appear to be tenuous technical reasons. Yet HAC is the only national organization presently staffed and funded to assist rural residents—other than migrants—meet their housing needs. HUD's insensitivity to HAC's importance is mirrored in its insensitivity to the need for funds for nonprofit sponsor assistance under section 106. Because of the lack or weakness of rural housing delivery systems, such assistance is even more urgently needed in rural areas than in cities.

Finally, we would like to call attention—along with others—to urgent community development need. In our view, rural areas are shortchanged under the basic community development funding formula. If the same factors had been used to allocate community development funds between metro and nonmetro areas as have been used within metro areas (population, overcrowded housing and poverty counted twice), rural areas would receive 40 percent of the funds, or twice as many as they now do. Requests for nonmetro discretionary funds are many times the amount available; requests for discretionary funds for rural parts of metro areas cannot be honored at all because urban county entitlements have used up the entire amount which might otherwise have been available. We urge appropriation of the full amount authorized for community development.

In closing, we would like to put the HUD budget in the context of some broader considerations. This year, for the first time, Congress has embarked on a new budget process, aimed at a comprehensive determination of national priorities as they are reflected in federal taxing and spending. This year, coincidentally for the first time, housing as a function has disappeared from the federal budget, and housing and community development items are scattered among at least four functions. We believe that it is important, in order to measure our national commitment to housing and its effectiveness in terms of meeting housing needs,

to provide some consistent ways of tracking all housing expenditures in the budget and, if possible, to identify what income groups are benefited and the proportion of housing need in each group which is being met.

For example, housing subsidy payments are less than 1 percent of the pending Federal expenditure budget, amounting to $2.6 billion. In part they are not higher because of the moratorium on housing subsidy programs which has prevented us from meeting our national housing goals. In contrast, Federal tax expenditures for housing are $11.3 billion, out of an estimated $92 billion total. These tax subsidies—deduction of mortgage interest and property taxes on single family homes—are not only not subject to any kind of moratorium, but the increase over the past 3 years has been greater than the total outlays for subsidized housing. Most of these dollars go to people who do not need federal subsidies to obtain decent housing.

We will not, in the coalition's view, adequately meet the housing needs of either rural or urban low and moderate income people without substantial increases in spending. For a start, we could match the tax expenditures we make for people with incomes above $20,000. That would give us more than $6 billion this year.

Environmental Protection Agency

LETTER FROM ROBERT B. HILBERT OF THE AMERICAN WATER WORKS ASSOCIATION

Mr. Boland. The committee has received a letter from Mr. Robert B. Hilbert, president, American Water Works Association, regarding the EPA budget.

The letter will be placed in the record at this point.

[The letter follows:]

American Water Works Association,
Denver, Colo., May 16, 1975

Re EPA budget—fiscal 1976.

Hon. Edward P. Boland,
Chairman, Subcommittee HUD–Independent Agencies,
House Appropriations Committee,
Washington, D.C.

The American Water Works Association appreciates your invitation to comment on the proposed amendment to the Environmental Protection Agency's fiscal 1976 budget that would provide $7.5 million in demonstration grant funds to support any project which will demonstrate a new or improved method, approach, or technology for providing a dependable safe supply of drinking water to the public.

The Association is a scientific and educational society that has, since 1881, been dedicated to the improvement of community water supply systems in order to provide better water for people. The Association has a membership of some 24,000 engineers, officials and organizations throughout the United States, Canada, and Mexico. It publishes many manuals, standards, books, and other periodicals, including a monthly technical journal and news bulletins, all for the purpose of assisting community water suppliers to provide better service to the public.

In working toward the objective of promoting better water service for those Americans now served by community water supply systems, the Association has been concerned with the constantly diminishing federal attention to the technical, research, and training problems of community water supply. At a time when water supply problems are burgeoning, lack of federal attention will inevitably lead to a crisis in water supply safety that will have to be met by an inefficient crash program. The recently passed Safe Drinking Water Act of 1974 (Public Law 93–523) is certainly a step in the right direction toward solving many of the problems, particularly in the smaller communities, met providing water for people.

The Association generally supported the Safe Drinking Water Act during its move through the Congress. It has long held that water utilities should, as a general rule, pay their own way by charging sufficient rates to provide the funds for capital improvements as well as for administration, operation, and

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maintenance of the system. It does feel, however, that there is a definite need for more research and research facilities along with training opportunities in water supply and that these are areas in which the Federal Government must, because of the small unit nature of water utilities, provide assistance.

The Environmental Protection Agency's fiscal 1976 budget includes very little, if any, funding for research, training or demonstration projects, a situation which the Association feels is regrettable. Consequently, it believes that the amendment introduced by Congressman James L. Oberstar which would provide $7.5 million for demonstration projects will be helpful to the cause of improving water supply service to the public. Even beyond that, there should be funds included in the EPA budget for other needed research along with some federal support for training of personnel to help implement the provisions of the Safe Drinking Water Act of 1974.

The Association is pleased to be able to provide these comments to your subcommittee and shall, of course, be happy to provide any other material your subcommittee may wish that might be helpful in reaching a decision in this matter.

ROBERT B. HILBERT, *President.*

NATIONAL SCIENCE FOUNDATION

STATEMENT OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE

Mr. BOLAND. The committee has received a statement from the American Society for Information Science regarding the budget for the National Science Foundation.

The statement will be placed in the record at this point.

[The statement follows:]

We appreciate this opportunity to comment on the National Science Foundation Authorization Act of 1976 regarding science-information programs. It is appropriate that the American Society for Information Science (ASIS) present this statement in view of the deterioration of Government support for scientific and technical information (STI) activities—which is one key to productivity—and the lack of overall national policy regarding STI programs which will help insure the harmonious development of Government and non-Government activities.

The American Society for Information Science is a nonprofit professional association of more than 4,000 members involved in designing, managing, and using information systems and technology. ASIS' purpose is to develop advanced methodologies and techniques that contribute to the more efficient use of information. The society provides a forum for the discussion, publication, and critical analysis of work dealing with the theory and practice of all elements involved in the communication of information.

ASIS is the largest professional membership association in the world that is dedicated to the rapidly evolving discipline of information science, the study of how information is transferred most effectively from the point of generation to the point of use. Information science evolved with the recognized need for an interdisciplinary approach to solving problems in science and technology. Thus, ASIS is deeply concerned that continued and increased support be provided for experimental and research activities regarding non-mission-oriented, or discipline- and multidiscipline-oriented science-information projects.

We believe that the views presented by the American Society for Information Science represent a consensus of the STI community. Via its official connections with more than 100 organizations, ASIS reaches hundreds of thousands of scientists, technologists and information professionals who serve the scientific and technical community. As an expression of our concern, we are asking for a congressional review of the shrinking level of funding for STI programs in the executive branch. We suggest that your committee seriously consider increasing support of science-information programs in light of the Nation's commitment to freedom of information and the key role that information and knowledge are playing and will continue to play in all of our national programs.

We are concerned that the proposed budget for science-information activities disproportionately represents less than 1 percent of the total budget for NSF—$6 million versus $775.4 million overall budget. Science-information programs

collectively form an embarassingly miniscule part of the NSF budget. However, these programs provide the only major opportunity for Governmentwide support for systematically harvesting and preserving the informational output from science and technology.

NSW is in a unique position to bring together the many components of research and science-information programs to attain common goals. It can, for example, conduct meaningful investigations of the contributions of information services in research programs by concurrently (1) promoting, in a developmental sense, the use of extant information services, including some that it has helped to support, and (2) measuring the use of information by those preparing proposals or by grantees and contractors actually engaged in research and development work in the various branches of science and technology.

We are greatly disturbed at the apparent lack of support for projects that are experimental in nature but which lead to more responsive, cost-effective, and speedy operations. These experimental projects are invaluable resources in providing the basic data needed to improve operations and, by so doing, increase the dissemination, delivery, and use of scientific and technical information, which, after all, is the fundamental goal of our national R. & D. programs.

ORGANIZING THE KNOWLEDGE OF SCIENCE

There is a direct relationship between the growth of human knowledge and the decline in society's ability to handle what it knows. The fragmentation of information or knowledge leads to overlap and duplication, to the scattering of relevant material through an ever-widening range of publications and, potentially, to increasingly dubious research. Science itself is nothing more than a search for new knowledge and what we learned today can only be built upon the foundation of what we learned yesterday. This requires organized knowledge; unorganized knowledge is as detrimental as no knowledge. Science and technology build on themselves, and without a readily available and effectively organized record of accomplishment through the years and across the world, much of man's past investment in science and technology is lost. Many problems of society take a long time to solve because past scientific work, not readily retrievable in the published record, needs to be repeated.

The recorded-knowledge (information) system in society is as critical a functional component of the society as is the central nervous system of an individual organism.

It is essential to the continued progress of the United States that the production, management, retrieval, and access of recorded information be made as effective and efficient as possible.

As you are aware, information is the principal raw material into R. & D. as well as the principal product of R. & D. It is considered to be one of our Nation's most important nonconsumable resources, a resource as fundamental as energy or matter, which affect all human activities. It is an indispensable, irreplaceable link between intellectual and material activities.

THE KEY ROLE OF NSF

The National Science Foundation is the only agency in the Federal Government with responsibility for the support of basic research in science and technology. With passage of the National Defense Education Act of 1958, the NSF Office of Science Information Service (OSIS) was created to provide or arrange for the provision of indexing, abstracting, translating, and other services leading to a more effective dissemination of scientific information, and undertaking programs to develop new or improved methods, including mechanized systems, for making scientific information available. It was recognized that the science-information office must support the development of a broad range of information processing technology and supply the same continuity for discipline-oriented information services that is routinely supplied by the mission-oriented agencies in pursuit of their assigned responsiblities. Since 1958, science-information programs of NSF have accomplished a great deal with relatively small amounts of money. The OSIS has provided a rallying point, a home, a defender, a supporter, and a leader for the information community.

The accomplishments of past STI programs are understated and undervalued. Statistics on the developmental support of a number of primary or secondary journals, or the amount of translation arranged for, or the number of national information services created or nutured do not make a most important point

that should be made. This point is: in spite of the great growth in the literature, in the number of scientific and technical users in the variety of ways that scientific and technological information is handled, and in the multidisciplinary nature of the many current technological problems (e.g. energy), the U.S. is one of these—if not the—world's leaders in collecting, organizing, managing, and disseminating scientific and technological information. We suggest this is no accident and that much credit accrues to NSF via its support of science information. But there is no room for complacency, the U.S. leadership is now being seriously challenged. We must accept the challenge and strengthen our mechanisms.

During fiscal year 1975 OSIS has focused its resources on:

1. Research to provide data for guiding improved management of STI across the broad range of activities included in our pluralistic STI enterprise;
2. Experiments to facilitate the emergence of service networks capable of providing cost-effective, assured access to information;
3. Activities designed to encourage development of working conditions within R. & D. settings that promote use of information.

To focus R. & D. work in each of these areas, 17 goals were identified. These goals are being used to derive program objectives toward which future project-supported activities can be directed. The information community is collectively examining these goals, as evidenced by OSIS' close involvement with the information community.

The total proposed budget for NSF for fiscal year 1976 is $775.4 million, as mentioned previously. This is an increase of $78.3 million and represents a growth of more than 11 percent. This truly reflects the commitment of the administration to support progress to produce fundamental knowledge necessary for economic growth and long-range solutions to problems of national concern. Some of the points not revealed in the proposed budget are:

1. The lack of understanding of the implications, cost, and waste of the continuing proliferation of STI;
2. The status of and requirements for modern computerized information systems that store and disseminate technical knowledge;
3. The increasing number of scientists, engineers, managers, industrial innovators, governmental officials, students, and others that require timely scientific and technical inormation; and
4. The need for greatly increased research and development that will improve the effectiveness, efficiency, and economical operation of the rapidly increasing number of information delivery systems, services, and libraries.

We view as a very serious matter the meager funding earmarked for those science-information programs which produce data and techniques leading to more efficient operation of information services. NSF should accept its role and responsibility as stated by Congress and should greatly increase its funding to universities, nonprofit societies and foundations, and for-profit organizations. With the mission-oriented Federal agencies spending about $1 billion a year for their STI programs, even a modest increased expenditure—specifically, we recommend a 3 to 5 percent of the NSF budget—will reap sizable dividends through (1) more efficient operations of these STI programs, (2) more effective dissemination and use of STI by the user community, and (3) better balance to insure the effectiveness and efficiency of the nongovernmental STI programs which in turn contribute considerably to the Federal R. & D. process.

RECOMMENDATIONS

Need for a focal point of national information goals and policies

There is an urgent need for a focal point for the development of national information goals and policies, to strengthen the development and application of science and technology, to provide requisite coordination, and to contribute to the development of national STI policy. Emphasis must be placed on the broad responsibility of the Government to be a supporter and catalyst in devising mechanisms for effective use of information, and to deal with national information programs on a planned and coordinated basis. There is also the crucial need for a combined Government and non-Government body of experts to systematically evaluate the implications and capabilities of the continuing technical advances made in computers, communications, micrographics, and related technologies.

We must develop more satisfactory mechanisms for locating and bringing

together the diverse social and technical information bearing on interdisciplinary programs (such as health, education, environmental quality, transportation, urban services), so as to insure more cooperative programs and less unnecessary duplication. A policy on the coordination of our international programs regarding STI activities should also be developed. NSF is in the best position to play a leading role in this activity.

The national information policy group should:

1. Articulate national goals and objectives;
2. Set priorities;
3. Establish a level of research and development funding commensurate with the need;
4. Periodically assess the health of the science-information enterprise;
5. Provide a forum for a continuing dialog between Government and the private sector;
6. Carry out major experiments that will have generalizable benefits; and
7. Assist in the coordination of Federal agency science-information programs and the resolution of conflicting activities and policies.

Increased level of support for science-information programs

We are pleased to see a proposed increase of $1 million for science-information programs. However, this level of support is far below what we believe to be a minimum of 3 to 5 percent of the total NSF budget. With such a small amount, many critical areas will go virtually unattended.

More funding is needed for such areas as:

Basic, fundamental research in the theory and problems of information science.

Testing the feasibility of existing and advanced technologies for improved dissemination of scientific and technical information.

Understanding the economics of information transfer.

Improving access to STI via improvement of the delivery system (e.g. journal production, abstracting and indexing services, data bases, networks).

Training of information professionals for teaching and management.

Education in modern information systems techniques and equipment for information generators and users.

Compatibility among systems, services, data bases, et cetera, for maximum efficiency.

Support needed for both research and developing activities

Few research and development projects can be initiated and completed on a short-range basis.

Additionally, it is questionable whether certain nongovernmental information systems can or should be expected to become self-sustaining on a short term basis in view of governmental policies on pricing of its mission-oriented information services.

Building systems for managing, delivering, and using information is basically a developmental problem. Research is only a part of the long-term commitment. In most instances these projects require some basic reorganization and transition in the use of newer and more powerful techniques. Both R. & D. efforts are needed.

CONCLUSION

Since scientific and technical information is the end product of the $34 billion annual investment the Nation makes in the research and development process, its optimum organization and use ranks high as a public responsibility. The tremendous growth and diversification of scientific and technical knowledge in modern times is abundantly evident. But, unless the STI apparatus is creatively managed now, we face the prospect of developing a collection of overlapping, costly, independent and unrelated science-information systems which do not mutually reinforce one another. Such fragmented development will almost certainly lead to information systems that act as a deterrent rather than as a stimulus to the research and development process as a whole.

In regard to science information objectives for the Nation we suggest the following:

For the individual user (scientist, engineer, manager, educator, researcher, et cetera):

1. Insure timely information and data of high quality by strengthening primary publishing;

2. Save time by abstracting and indexing all relevant STI and providing him suitable means for finding what is indexed;

3. Facilitate access to the total resource by perfecting STI networks;

4. Enhance effectiveness by building STI systems that are fully responsive to user needs; and

5. Optimize the utilization of STI by (a) introducing programs of user education early in formal education, and (b) allowing for a program of continuing education.

For the Nation:

1. Establish a science-information research program at a level commensurate with national objectives and pursue the widest possible experimentation with new ideas that can produce generalizable results;

2. Set goals and policies which coalesce the mutual information interest of the public and private sectors;

3. Create a national forum where science-information goals and objectives can be continually formulated and modified; and

4. Establish a focal point in Government to ally U.S. interests with science-information programs in other countries.

The Federal Government has a public responsibility for insuring that all individual users in the Nation are served by modern science-information systems. The individual user's time and power of attention are precious things which need to be carefully husbanded. To do this effectively and efficiently, we must supply the most modern techniques of access and controlled selectiveness that can be devised.

Similarly, the Nation's ability to benefit from the cumulative effects of prior research is contingent upon the means we employ for disseminating and sharing scientific and technical information. For these reasons, we believe we need a high-level body in the Federal Government that will give permanent, evaluation and policy attention to scientific and technical information and that can devise a long-range research and development program in our Nation's best interest.

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