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Congressional Record

PROCEEDINGS AND DEBATES OF THE 91st CONGRESS, FIRST SESSION

SENATE—Wednesday, October 1, 1969

The Senate met at 12 o'clock noon and was called to order by Hon. ROBERT W. PACKWOOD, a Senator from the State of Oregon.

The Chaplain, the Reverend Edward L. R. Elson, D.D., offered the following prayer:

Dear Lord and Father of mankind, who has made and preserved us a nation, make us ever conscious of Thy presence. May the pressures and tensions of the world not shape us but may we shape the destiny of the world. In this forum of freedom, amid the conflict of words and the collision of ideas, may Thy servants be led by Thy spirit to that deeper unity bestowed upon those who strive to know and to do Thy will. Beyond the duties of the day may we behold the splendors of the coming age when all people share in the bounty of the earth, in homes of comfort, in schools well taught, on streets that are safe in a warless world, with Thy love in their hearts and the peace of eternity in their souls.

In the Redeemer's name, we pray.
Amen.

DESIGNATION OF ACTING PRESIDENT PRO TEMPORE

The PRESIDING OFFICER. The clerk will read a communication to the Senate.

The legislative clerk read the following letter:

U.S. SENATE,
PRESIDENT PRO TEMPORE,

Washington, D.C., October 1, 1969.

To the Senate:

Being temporarily absent from the Senate, I appoint Hon. ROBERT W. PACKWOOD, a Senator from the State of Oregon, to perform the duties of the Chair during my absence.

RICHARD B. RUSSELL,
President pro tempore.

Mr. PACKWOOD thereupon took the chair as Acting President pro tempore.

THE JOURNAL

Mr. KENNEDY. Mr. President, I ask unanimous consent that the reading of the Journal of the proceedings of Tuesday, September 30, 1969, be dispensed with.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

MESSAGES FROM THE PRESIDENT—APPROVAL OF BILLS

Messages in writing from the President of the United States were communicated

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to the Senate by Mr. Leonard, one of his secretaries, and he announced that on September 29, 1969, the President had approved and signed the following acts:

S. 85. An act for the relief of Dr. Jagir Singh Randhawa;

S. 728. An act for the relief of Capt. Richard L. Schumaker, U.S. Army;

S. 1766. An act to provide for the disposition of a judgment recovered by the Confederated Salish and Kootenai Tribes of Flathead Reservation, Mont., in paragraph 11, Docket No. 50233, U.S. Court of Claims, and for other purposes; and

S. 1888. An act to change the composition of the Commission for Extension of the U.S. Capitol.

EXECUTIVE MESSAGE REFERRED

As in executive session, the Acting President pro tempore laid before the Senate a message from the President of the United States submitting a nomination, which was referred to the Committee on Foreign Relations.

(For the nomination this day received, see the end of Senate proceedings.)

MESSAGE FROM THE HOUSE

A message from the House of Representatives, by Mr. Bartlett, one of its reading clerks, announced that the House had passed a bill (H.R. 13300) to amend the Railroad Retirement Act of 1937 and the Railroad Retirement Tax Act to provide for the extension of supplemental annuities and the mandatory retirement of employees, and for other purposes.

The message also announced that the House had agreed to the amendments of the Senate to the concurrent resolution (H. Con. Res. 193) authorizing the printing as a House document of a revised edition of "The Capitol," and providing for additional copies.

The message further announced that the House had agreed to the amendments of the Senate to the concurrent resolution (H. Con. Res. 309) second listing of operating Federal assistance programs compiled during the Roth study.

ENROLLED BILL SIGNED

The message also announced that the Speaker had affixed his signature to the enrolled bill (S. 713) to designate the Desolation Wilderness, Eldorado National Forest, in the State of California, and it was signed by the Acting President pro tempore.

HOUSE BILL REFERRED

The bill (H.R. 13300) to amend the Railroad Retirement Act of 1937 and the Railroad Retirement Tax Act to provide for the extension of supplemental annuities and the mandatory retirement of employees, and for other purposes, was read twice by its title and referred to the Committee on Labor and Public Welfare.

LIMITATION ON STATEMENTS DURING TRANSACTION OF ROUTINE MORNING BUSINESS

Mr. KENNEDY. Mr. President, I ask unanimous consent that statements in relation to the transaction of routine morning business be limited to 3 minutes.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969

Mr. KENNEDY. Mr. President, I ask unanimous consent that at the conclusion of the morning business, the Senate proceed to the consideration of the unfinished business, S. 2917, Calendar No. 410, the Federal Coal Mine Health and Safety Act of 1969.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

COMMITTEE MEETINGS DURING SENATE SESSION

Mr. KENNEDY. Mr. President, I ask unanimous consent that all committees be authorized to meet during the session of the Senate today.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

ORDER OF BUSINESS

Mr. KENNEDY. Mr. President, I suggest the absence of a quorum.

The ACTING PRESIDENT pro tempore. The clerk will call the roll.

The bill clerk proceeded to call the roll.

Mr. KENNEDY. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. BYRD of West Virginia in the chair). Without objection, it is so ordered.

RESULTS OF POLL IN OREGON

Mr. PACKWOOD. Mr. President, recently I polled about 10 percent of the

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voters of Oregon on their opinions as to miscellaneous items facing this country and facing my State. I had a return on this poll of approximately 15 percent—about 15,000 answers. I think the concern of citizens of Oregon for the various issues in this country would be well taken by all Members of the Senate, and I ask unanimous consent that the results of the poll be printed at this point in the RECORD.

There being no objection, the results of the poll were ordered to be printed in the RECORD, as follows:

QUESTIONNAIRE RESULTS SHOW LIVABILITY CONCERN

My suspicion that Oregon citizens are becoming more concerned about preserving the livability of our state for present and future generations was borne out when results were analyzed from my first questionnaire.

As you may recall, the questionnaires were sent to one of every 10 registered voters, or a total of about 85,000 persons.

For example, 93 percent of those replying felt that less emphasis should be placed on how fast Oregon grows and more emphasis on making it more livable for present and future generations. Also 89 percent of those responding favored more stringent regulations by the federal government in dealing with air and water pollution. Better than three out of four (76.8 percent) persons responding said they favored setting aside more public land for conservation purposes such as national parks, wildlife refuges and wilderness areas.

On other issues, there were some equally surprising results.

On whether income derived from businesses owned by churches and other non-profit organizations should be taxed, nearly 9 out of 10 persons responding (88.4 percent) felt it should.

On Vietnam, virtually everyone (98.5 percent) has an opinion of some kind. As for the controversial antiballistic missile system, there are a substantial number (21.2 percent) of the voters who are unsure about whether it should be deployed. Of those having an opinion, sentiment is about equally divided.

I'm most encouraged by the response. The results provide me with a good insight into how Oregon voters view the key issues of the day.

Here is a detailed rundown of the results:
[Answers in percent]

OREGON

1. Do you favor a study to determine which portions of the Oregon Cascades should be devoted to wilderness, parks (plus other recreational areas) and timber cutting areas?

Yes	79.4
No	11.9
Not sure	8.7

2. Do you favor setting aside more public land for conservation purposes such as national parks, wildlife refuges, and wilderness areas?

Yes	76.8
No	15.2
Not sure	8.0

3. Do you favor more stringent regulations by the Federal Government in dealing with air and water pollution?

Yes	89.1
No	6.8
Not sure	4.1

4. Do you associate progress in Oregon with increased industrial development?

Yes	46.3
No	41.5
Not sure	12.2

5. Do you believe less emphasis should be placed on how fast Oregon grows and more emphasis on making it more livable for present and future generations?

Yes	93.0
No	5.2
Not sure	2.8

6. In your opinion what should be done with the Oregon Dunes area along the coast?

(a) Create a national park	23.3
(b) Create a national recreation area	33.1
(c) Leave it as it is	31.8
(d) No opinion	11.8

7. When considering the uses of national forests and public lands, what do you feel should have top priority? (Please select only three and indicate your 1st, 2d, and 3d choices by number.)

Watershed protection	39.5
Production of commercial timber	15.9
Mining	1.0
Wilderness areas (hiking, backpacking, etc.)	16.8
Grazing	5.2
Outdoor recreation (fishing, camping, skiing, boating, etc.)	21.6

NATIONAL

8. Do you approve of the anti-ballistic-missile system as proposed by President Nixon?

Yes	38.7
No	40.1
Not sure	21.2

9. Do you favor a continuation of the 10-percent Federal surcharge on individual and corporate income taxes?

Yes	31.1
No	59.9
Not sure	9.0

10. Do you think the United States should eliminate the draft and depend on a volunteer military force?

Yes	30.2
No	54.7
Not sure	15.1

11. Do you think the Federal Government should guarantee an annual income to citizens who are willing to work but are living in poverty?

Yes	31.6
No	53.4
Not sure	15.0

12. Do you favor the Federal Communications Commission's proposal to ban cigarette advertisements on television and radio?

Yes	67.2
No	27.8
Not sure	5.0

13. Do you favor a permanent arrangement whereby social security benefits are adjusted according to the cost of living index?

Yes	85.0
No	8.7
Not sure	6.3

14. Do you favor taxing income from businesses owned by churches and other non-profit organizations?

Yes	88.4
No	7.8
Not sure	3.8

15. Following Project Apollo (the lunar landing) do you think the U.S. should decrease spending for the Space Program?

Yes	59.2
No	28.8
Not sure	12.0

INTERNATIONAL

16. If at the end of 1969 the Paris Peace talks on the Vietnam war are unsuccessful, do you favor:

(a) a complete withdrawal of U.S. troops	24.7
(b) withdrawing U.S. troops as rapidly as they can be replaced with South Vietnamese forces	43.9
(c) an all-out military offensive (but no nuclear weapons)	26.9
(d) a continuation of present policy	3.0
(e) no opinion	1.5

FHA INVOLVEMENT IN OREGON RETIREMENT HOME

Mr. PACKWOOD. Mr. President, I invite the Senate's attention to a matter involving a retirement home in Oregon. It is a small retirement home, but it is a matter of some significance, and I hope this is something that will not be repeated in other States.

Several years ago, the Catholic Church, in connection with what was later found to be in essence a fast-buck promoter, undertook to build a retirement home in a small community in Oregon. The church is without fault in this matter. The promoter fooled not only the church, not only those who paid their founders' fees in hoping to retire in this home, but also the Federal Housing Authority.

This promoter, Mr. Markee, was called to task and tried in the Federal district court in Oregon on a variety of charges, and was found guilty. The discouraging thing is that the Federal Housing Authority, while not a party to the case, was found by the district court judge in his comments to be at least haphazardly negligent. I quote from his comments in the sentencing what he had to say about the Federal Housing Authority:

It is pretty obvious that Mr. Markee wasn't the only villain involving the Mt. Angel retirement home situation. I don't know whether the other people's involvement involved criminal guilt, but it is obvious there was lack of ethics and probably some gross negligence on the part of some employees of the Federal Government and the agency.

By "the agency" he meant the Federal Housing Authority.

Again, Mr. President, I am not commenting on that particular act of the Federal Housing Authority. We all make mistakes and we all will.

The Federal Housing Authority, because the retirement home did not pan out financially, had to foreclose, had to pay off the mortgage, and took over ownership of the retirement home. At that time, occupancy of the retirement home was very slight. It is very slight today.

Obviously, the church was worried about the people who had paid their founder's fee and under a contract were entitled to live there for life at the fee set in their initial founder's contract.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. PACKWOOD. I ask unanimous consent that I may proceed for 5 additional minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PACKWOOD. Therefore, on November 22, 1966, the Federal Housing Authority wrote to the church, wrote to the abbot of the Mount Angel Abbey, to give assurances that nothing would happen to the people who were in; and they

indicated that so long as the founders were there who had paid their fee and so long as they paid the rent stipulated in their original lease, they could remain in the premises under any of three conditions:

First, while the mortgage is in an insured status, that is, while the present mortgagee holds the mortgage; second, if the mortgage is assigned to the Federal Housing Authority; third, if the title to the project is given to the Federal Housing Authority through foreclosure or other means. That is what has happened. The Federal Housing Authority has foreclosed, and they own the project.

About 2 months ago, they indicated to all those who occupy the premises under this founder's fee and guaranteed payment that they would have to vacate the premises unless they paid a substantial increase in rent, not because other people were beating on the doors to get into this project—it is still barren of occupancy; not because more money would be produced by raising the rent, because enough people have moved out that the net rent would not be more than it would have been if the people had remained. Simply because the Federal Housing Authority thought that under their procedures and structure, they had to raise the rent.

I objected and talked with the Under Secretary of Housing and Urban Development and got a 30-day extension. That extension expired yesterday, and now HUD has refused to grant any further extension—despite the fact that there was something bordering close to negligence by the Federal Housing Authority in the first instance, despite the fact that the Federal Housing Authority had given written assurances that these people would not be evicted so long as they paid the rent stipulated in their original contract.

Mr. President, I will now read from a letter dated September 29, 1969, addressed to me from the Under Secretary of Housing and Urban Development, Richard C. van Dusen. He refers to the promise the FHA made to these people. One paragraph of his letter reads:

I am advised by our counsel that the letter is without legal significance. As you point out, the occupants of this project have already had a good deal of experience with broken commitments.

I think it is difficult when a person reaches retirement age, having worked most of his life, enters a retirement home cosponsored, at least morally, by his church, and certainly given assurances of his Federal Government that he can live there the rest of his life under what he thought was a valid contract, and now discovers his Government reneged on the contract the Government made, forcing him to leave.

I have not finished my investigation of this matter. The Federal Housing Authority has been good enough to grant that some of the very lowest income tenants may remain, not under the original contract price, but at increased prices rather than greatly increased rentals. I have not completed my investigation, but I am embarrassed and ashamed that

my Government would make a specific promise to older citizens that they could remain in a retirement home for the rest of their lives, and then take over that retirement home and force them out.

ORDER OF BUSINESS

Mr. FULBRIGHT. Mr. President, I ask unanimous consent that I may proceed for 10 minutes.

The PRESIDING OFFICER. The Senator from Arkansas is recognized for 10 minutes.

THE VIETNAM MORATORIUM

Mr. FULBRIGHT. Mr. President, it has been 9 months since the President took office, the normal period of gestation for humans to bring forth their issue. No one expected a miracle, but many of us did expect the President to make progress in delivering on his campaign promises to give birth to his plan to end the war. Now comes the newly elected minority leader, the distinguished Senator from Pennsylvania (Mr. SCOTT), the President's leader in the Senate, with the novel, never-before-heard suggestion that there be a 60-day moratorium on criticism of the President because "He needs more time." How many times have we heard that?

Nearly 10,000 American fighting men have died in Vietnam since President Nixon took office. At an average rate of 500 deaths per month, another 1,000 Americans will die in the next 60 days.

Rather than a moratorium on criticism, which kills no one, we who criticize continuation of the war seek, instead, a moratorium on killing. When will this administration bite the bullet instead of firing it and present to the American people the plan to end this war which practically all knowledgeable observers now believe we should never have been involved in.

It is time for Americans to leave Vietnam; it is time for the Vietnamese to fight their own war. I do not believe there is any justification for another American to die in that unhappy land. I, for one, do not intend to abide by the suggestion of the minority leader until our participation in this war ceases or until I become convinced this administration has at least taken the decision to extricate us from the war, and, apparently, I am not alone in this view.

Contrary to the apparent belief of the minority leader of the Senate, the moratorium on normal activities planned by students on campuses across the country for October 15 is in the best American tradition of peaceful protest for the redress of grievances. Rejecting the crude chauvinism of "my country—right or wrong," the participants in this Vietnam moratorium are doing their country the honor of setting a high standard, and of settling for nothing less. They seek to set it right.

When the United States invaded Mexico in 1846, two former Presidents—John Quincy Adams and Martin van Buren—and one future President—Abraham Lincoln—denounced the war as a viola-

tion of American principles. When the United States fought a war with Spain and then suppressed the patriotic resistance to the imposition of American rule in the Philippines, the ranks of the opposition included two former Presidents, Harrison and Cleveland, as well as Senators and Congressmen including the Speaker of the House of Representatives, and also such distinguished individuals as Andrew Carnegie and Samuel Gompers. In their peaceful but determined protests against the stupidity and immorality of Vietnam, the students who participate in the moratorium of October 15 will be upholding one of our country's best democratic traditions: the refusal of responsible citizens to acquiesce in silence to a war they deem unjust.

One may hope that President Nixon will reconsider his assertion of September 26 that "under no circumstances" will he be "affected" by opposition to the war in Vietnam on the campuses and in the country. If the President is going to close his mind in advance to the peaceful, orderly expressions planned for October 15, the likely result will be disillusionment on the part of the majority of young people who still have faith in their country's democratic procedures and the swelling of the ranks of that dissident, violent minority whose excesses the President himself has so frequently and so eloquently deplored.

Mr. President, 55 years ago this year one of the most pertinent and eloquent statements on what I think afflicts our country today, an attitude of mind, was written and published in the New Republic. The article reads:

Every sane person knows that it is a greater thing to build a city than to bombard it, to plough a field than to trample it, to serve mankind than to conquer it. And yet once the armies get loose, the terrific noise and shock of war make all that was valuable seem pale and dull and sentimental.

Trenches and shrapnel, howitzers and forts, marching and charging and seizing—these seem real, these seem to be men's work. But subtle calculations in a laboratory, or the careful planning of streets and sanitation and schools, things which constitute the great peaceful adventure of democracy, seem to sink to so much whimpering futility.

Who cares to paint a picture now, or to write any poetry but war poetry, or to search the meaning of language, or speculate about the constitution of matter? It seems like fiddling when Rome burns. Or to edit a magazine—to cover paper with ink, to care about hopes that have gone stale, to launch phrases that are lost in the uproar? What is the good now of thinking? What is a critic compared to a battalion of infantry? This, men say, is a time for action, any kind of action.

THE ONLY WEAPON

So without a murmur, the laboratories of Europe are commandeered as hospitals, a thousand half-finished experiments abandoned. There was more for the future of the world in these experiments than we dare to calculate. They are tossed aside. The best scholarship has turned press agent to the General Staff.

Yet the fact remains that the final argument against cannon is ideas. The thoughts of men which seem so feeble are the only weapons they have against overwhelming force. It was a brain that conceived the gun, it was brains that organized the armies, it was the triumph of physics and chemistry that made possible the dreadnaught.

Men organized this superb destruction; they created this force, thought it, dreamed it, planned it. It has got beyond their control. It has got into the service of hidden forces they do not understand. Men can master it only by clarifying their own will to end it, and making a civilization so thoroughly under their control that no machine can turn traitor to it.

For while it takes as much skill to make a sword as a ploughshare, it takes a critical understanding of human values to prefer the ploughshare. That is why civilization seems dull and war romantic to unimaginative people.

It is no wonder, then, that war, once started, sweeps everything before it, that it seizes all loyalties and subjugates all intelligence. War is the one activity that men really plan for passionately on a national scale, the only organization which is thoroughly conceived. Men set their armies on a hair-trigger of preparation; they leave their diplomacy archaic. They have their troops ready to put down labor disputes; they will not think out the problems of labor. They turn men into military automata, stamp upon every personal feeling for what they call the national defense; they are too timid to discipline business. They ask men to die for their country; they think it a stupid strain to give time to living for it.

Knowing this, we cannot abandon the labor of thought. However crude and weak it may be, it is the only force that can pierce the agglomerated passion and wrongheadedness of this disaster.

We have not known how to forestall the great calamity. We have taken the ideas that were thrust upon us; we have believed what we were told to believe. We have got into habits of thought when unnecessary things seemed inevitable; in panic and haste we stumbled into what we did not want.

HATE ISN'T ENOUGH

We shall not do better in the future by more stumbling and more panic. If our thought has been ineffective, we shall not save ourselves by not thinking at all, for there is only one way to break the vicious circle of action, and that is by subjecting it endlessly to the most ruthless criticism of which we are capable.

It is not enough to hate war and waste, to launch one unanalyzed passion against another, to make the world a vast debating ground in which tremendous accusations are directed against the Kaiser and the financiers, the diplomatists and the gun manufacturers. The guilt is wider and deeper than that. It comes home finally to all those who live carelessly, too lazy to think, too preoccupied to care, afraid to move, afraid to change, eager for a false peace, unwilling to pay the daily costs of sanity.

We in America are not immune to what some people imagine to be the diseases of Europe. Nothing would be easier for us than to drift into an impossible situation, our life racked and torn within and without. We, too, have our place in the world. We have our obligations, our aggressions, our social chasms, our internal diseases. We are unready to deal with them.

We are committed to responsibilities we do not understand; we are the victims of interests and deceptive ideas, and nothing but our own clarified effort can protect us from the consequences. We, too, can blunder into horror.

Mr. SCOTT. Mr. President, may I respectfully invite the distinguished Senator from Arkansas, chairman of the Foreign Relations Committee, to the labor of thought. May I inquire, therefore, whether his statement includes the suggestion that we withdraw forthwith,

immediately, precipitately, without concern for the consequences to the people of Vietnam, from this unfortunate, dreadful, and unpopular war?

Mr. FULBRIGHT. I think that the suggestions which have already been made by Members of this body and others—and which I have made—are not based upon the description of the circumstances the Senator has described. I think that liquidating this war at the earliest opportunity shows the greatest consideration for the people of Vietnam.

We became involved in this war without justification. It was a terrible and tragic mistake in judgment, in my opinion, going back many years. If the Senator wishes to review its history, that is perfectly proper, and I am prepared to try, but I do not know whether the Senator wishes to do that now.

Mr. SCOTT. I do not wish to review the history. I should like to know what the Senator from Arkansas is saying; as to whether he wants to get out of the war now or not.

Mr. FULBRIGHT. What I am leading into is the reason why I think it is to their interest, as well as ours to end the war. The war has now degenerated into a mindless and purposeless slaughter of both Americans and Vietnamese. The President himself, if I understand it, is not intending to seek a military victory. I believe that is correct. I think it was evident some time ago that neither his predecessor nor this one can achieve one with reasonable cost.

There is no question that we could destroy all the Vietnamese, if we were willing to pay the price of condemnation by all civilized people, by using nuclear bombs. We can kill them off. It is not a question of being defeated in a war. The United States is not going to be defeated by this very small nation of peasants. It is an utterly unthinkable thing that we could be defeated militarily. This is not a war in the traditional sense. It is a tragic mistake, in which we became involved.

Now I say, what we are doing is not admitting defeat, we are not "bugging out" of a war. We are liquidating a tragic mistake. We show great wisdom and restraint in the use of our power if—as I have said on this floor so often—we would take the model or the plan laid down in the Geneva accords which are as near to a reasonable settlement of this kind of situation that I can think of.

The PRESIDING OFFICER. The time of the Senator from Pennsylvania has expired.

Mr. SCOTT. Mr. President, I ask unanimous consent to proceed for 5 additional minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. FULBRIGHT. I do not mind any specific variations in the procedure, but the accords provide for a free election, free of local domination by any particular faction. The accords set up the machinery—whether it would work or not, I do not know, it was never tried—but I think that is what we should do, and do it forthwith.

Mr. SCOTT. That is it. I am not ask-

ing the Senator to turn his mental clock back. I am asking him to adjust his mental timetable to today—

Mr. FULBRIGHT. Yes, sir.

Mr. SCOTT. And answer the question of whether he is advocating that we get out of the war today and, if so, under what terms.

Mr. FULBRIGHT. What I am advocating is that the President recognize it is not in the national interest of the United States to continue supporting the existing government in South Vietnam, which is the principal inhibitor and not only of a political settlement. But he has become wedded to it. He has stepped into almost precisely the same attitude as his predecessor. One of the things I expected of this President, and I was assured, I might add, by him and by his principal adviser, Mr. Kissinger, that they would not continue to follow the policies of his predecessor.

In so many words, that was said.

Mr. SCOTT. Does not the Senator recognize the difference—with this President—the difference between winding up a war and unwinding one? Is not this President in the process of unwinding this war? Is he not doing what the Senator from Arkansas has long advocated; namely, bringing home 67,000 of our troops?

Mr. FULBRIGHT. He is doing it much too slowly, while the rate of slaughter continues. He has been, as I said in my statement, actually President for 9 months. He was elected nearly a year ago, and that is 11 months ago practically. It is a matter of timing. If he takes out only 50,000 troops a year, that will take 10 years.

Mr. SCOTT. Is the Senator pleased with the cutback in the draft calls?

Mr. FULBRIGHT. I favor those, but that is only a token which appears to be designed merely to stifle criticism.

I am not criticizing just for the sake of criticizing. I am criticizing because I think this war is a tragic mistake and should be stopped much sooner than he apparently plans to stop it. That is how it appears now.

I have joined others in not criticizing, in any appreciable way, up until today; but he has stated that he is going to ignore any protest, which I assume will be a rational, well-conducted, and an orderly protest, sponsored—not by the SDS—but by responsible elements. I think the country and its people are tired of this war. They have become disillusioned with it. It is our country which is suffering great disunity and turmoil internally with its economy almost in chaos.

Mr. SCOTT. The Senator has made his speech. Would he allow me to continue?

Mr. FULBRIGHT. The Senator asked me the question.

Mr. SCOTT. But I did not expect such a long, convoluted answer. I like to be enlightened and I am willing to be enlightened, but I wish to be enlightened on the Senator's own time.

Mr. FULBRIGHT. One of the Senator's own colleagues from the State of New York has put in a pertinent resolution. Whether that is exactly the way it

should be done, I do not know. I am interested in it. I have assured him that insofar as I am able, I shall schedule hearings on it, and for anyone else who wishes a hearing on the subject. The Senator has a resolution, and I think it should be discussed.

What I am saying is, I would object to the policy that we should all keep quiet and hope for the best. We have had 9 months of official power now to move, I think it is moving very little. It is all mostly talk. We still have over 500,000 men in Vietnam. He still talks about moving and taking people out, but there has been very little movement.

The PRESIDING OFFICER. The time of the Senator from Pennsylvania has expired.

Mr. FULBRIGHT. That is what I am, in effect, saying.

Mr. SCOTT. Mr. President, in view of the fact that I am not getting answers, I ask unanimous consent to proceed for 5 additional minutes on my own time and then the Senator from Arkansas may ask me to yield.

Mr. FULBRIGHT. All right.

The PRESIDING OFFICER. Without objection, the Senator from Pennsylvania is recognized for 5 additional minutes.

Mr. SCOTT. Mr. President, the Senator from Arkansas has mentioned my name as minority leader, referring to the fact that I have asked for some quietude—not an unpleasant thought in an unquiet world.

After all, there is a statement of Walter Bagehot's:

An inability to stay quiet is one of the most conspicuous failings of mankind.

There is something also to be said for Lord Byron's view:

Quiet to quick bosoms is a hell.

I respect the Senator's ability as a semantic acrobat when he says that the President has stated he would ignore the suggestions of the October 15 demonstrators. I respectfully submit that the President said nothing of the sort. The direct quotation I quote, and it is accurate, just in the interest of maintaining some sort of average. What the President actually said was:

I cannot be affected by what happens on October 15.

What he clearly meant, it seems to me to all reasonable minds, is that no matter how much demonstration occurs, no matter what Senators may say, no matter what others may say to divert the President from a commitment to a course of peace with the opportunity to end the war in the best way he can, he cannot be affected by volunteer suggestions from people who meet on the 15th of October and say, "You must end the war on our terms," or "You must end the war on Hanoi's terms if it comes to that."

Mr. President, the President can end the war only on terms made by the United States of America.

People say, "Oh, he withdrew 60,000 troops. That is only a token."

Mr. President, that is no "token" to the 60,000 people coming home.

That is no "token" to those who will be killed this year, even though the casualties have dropped one-third.

That is no "token" to our soldiers in Vietnam even though infiltration has dropped by two-thirds this year.

We can say that it will take so many years to withdraw all our troops from Vietnam, but this is not a number's game.

Up until now, this year, no troops were withdrawn. They were being escalated. We are deescalating. We spent 6 years moving into a war, and we have had only 8 months to move out of it, and we are moving out of it.

The President's desire is to move far more than the 60,000. His desire is to move as many as he can this year, and next year, and try to bring it to an end. And those who would say, "Let us end the war on a date in December 1970" are saying to the President, "We are prolonging the war." The President wants to end it before then if he can.

The distinguished Senator from Arkansas has said that I have asked for some moratorium, some quiet period—which I have—but he also makes the point that he wants the killing to stop. In the name of God, so does every American. Of course we all want the killing to stop. For any advocate on either side of the controversy to indicate that the other side does not want the killing to stop is not a statement with which I can find myself in agreement.

Now, who wants the killing to stop? The Senator is unwilling to say he wants the war stopped today. Does he want it stopped tomorrow, or next week—

Mr. FULBRIGHT. I did not say that.

Mr. SCOTT. I will yield to the Senator in a minute. I will be fair to him.

But he is unwilling to say he wants it to stop today, tomorrow, next month, or the 15th of October—some magic date—and he is not willing to say when he wants it stopped. I say we ought to stop it just as soon as we can, but we wish to stop it under conditions that recognize that President Ho and his group, when they moved into North Vietnam, murdered every Catholic leader they could get their hands on. If we withdraw under conditions which will not enable them to protect themselves, they will kill South Vietnamese. There will be no end of the killing, and they will kill the Catholics first, and a lot of the leading Buddhists.

Let that blood be on someone else's hands—not mine.

I am for the President and for what he is doing. I am for doing it as fast as we can. I am for a union, a concert of American minds behind the only President we have at any given time. I made that same kind of statement for President Johnson on the floor of the Senate many times. I said time and time again I would support him, whether I would do it this way or another way. I will support President Nixon the same way.

What would the Senator from Arkansas do, if he is to terminate the war immediately, with the American prisoners of war? Does he propose to leave the prisoners of war in the bloody hands of

Hanoi? Does he propose to abandon those American prisoners of war as we rush precipitately to the harbors and airfields to get rid of a war which no one likes, which no one wished for, and we wish we had never gotten into?

I will be glad to yield to the Senator from Arkansas up to the time my time expires if he is willing to tell me what he would do with the prisoners of war.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. GRIFFIN. Mr. President, I ask unanimous consent that the Senator may proceed for 5 minutes.

Mr. SCOTT. Mr. President, I ask unanimous consent to proceed for 2 additional minutes.

Mr. FULBRIGHT. I would have the opportunity—

The PRESIDING OFFICER. The Senator from Pennsylvania has the floor. He has asked for 2 additional minutes.

Mr. SCOTT. I have asked for 2 additional minutes so I may yield to the Senator from Arkansas.

Mr. FULBRIGHT. Mr. President, I would like to ask for 5 minutes on my own time in order to respond to the Senator from Pennsylvania.

The PRESIDING OFFICER. Without objection, the Senator from Pennsylvania is recognized for 2 minutes.

Mr. FULBRIGHT. I wanted to say one or two things. The Senator said I am unwilling to say we should stop the war now. I have said many times—I assume the Senator is familiar with it—that the pattern of ending the war that the French carried on for 9 years was set at Geneva. I think it was a good one. The first thing was a cease-fire which was agreed to between the French and the Vietminh. Then there was the Geneva accord, which set out all the conditions and arrangements which were to be followed in the final liquidation of the colonial status of Vietnam.

I am certainly more than willing to say that, if I possibly could, I would try to get a cease-fire immediately, today or tomorrow. I have said that time and time again. But there are conditions that obviously have to be met in order to get that kind of agreement, and this is where the President has not fulfilled his campaign promise. He ran, a year ago, on the principle, which he stated, of ending the war. He has had approximately 9 months to bring forth the plan. I have not seen the plan.

I do not deny that the President wants to end the war. I have said that. Of course he wants to end the war. He wants to end the killing. We do not differ on that.

Mr. SCOTT. Has the Senator read the paper—

Mr. FULBRIGHT. I have made no such insinuation that the President does not want to. I have said it is a matter of judgment, that he is not willing to take those steps essential to that, a cease-fire and an arrangement which would deal not only with the prisoners of war but the other conditions necessary for the settlement of the war.

I wrote a letter to the late Ho Chi Minh, with the knowledge and approval

of the State Department, inquiring about the prisoners of war. Everyone does whatever he can in this field, and, of course, we are concerned with it. I do not think it is at all appropriate for the Senator to insinuate that any of us, or any of us who criticize the President, are heartless and feel that the President does not want to stop the war. We are dealing here with a matter of judgment.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. SCOTT. Mr. President, I yield the floor.

Mr. FULBRIGHT. Mr. President, I ask unanimous consent to proceed for 5 minutes.

The PRESIDING OFFICER. Without objection, the Senator from Arkansas is recognized for 5 minutes.

Mr. FULBRIGHT. We are not dealing here with any differences of that character. It is a matter of judgment and urgency. In order to arrive at that judgment, one balances off not only the killing and the tragedy in Vietnam, but what is happening at home.

I think every Member of the Senate has, in the last few days, had visits from delegations from home in the field of housing. It is only one illustration of the great concern of the people of the United States.

I thought it was very significant that in the elections in Massachusetts yesterday, for the first time since 1875, a Democrat was elected in the district of the late Bill Bates, and the main issue in that election was the war. I can certainly understand it. It ought to be a signal to our political leaders on both sides of the significance of it in the minds of our people.

It is becoming intolerable to continue a war with a purpose no greater than the announced purpose. When we have accepted the principle that we are not going to have a military victory, then there is no use in delaying the settlement of the war. Military victory has been admitted by the President and others generally to be unachievable at a reasonable cost. It is not unachievable. No one denies that we could completely destroy all of Vietnam—North Vietnam and South Vietnam, for that matter—if we wished to. But that is not the question, as I have already said. The question is one of judgment, as to how to proceed to liquidate. I do not think we promote that by a period of silence. We have had a period of silence—relative silence. There has been very little criticism or very few suggestions in the Senate for the past 9 months. I think the time has come now, in the best interests of the country, that we should try to resolve this issue.

The Senate has an obligation to give advice to the President whenever appropriate, especially in the field of foreign relations. That is what we are trying to do—to give the best advice we know—because we are all concerned not only with bringing the men home from Vietnam, but with preserving the existing form of government in this country. We cannot take too lightly the assumption that nothing could disrupt this country. Nearly every country in the world has

gone into a revolution of one kind or another, in which its established institutions have been destroyed.

I know there are others who are going to say, or have said, that instead of liquidating the war as a tragic mistake, we should resume the objective of bombing of the north, and the destruction of North Vietnam—technically a perfectly feasible program.

I would say that would be a desertion of American principles. I think it would bring upon this country the most violent outbreak of resentment from all over the world—not just from Communist countries, but from non-Communist countries and all kinds of countries, including our best friends. I do not think under the present circumstances that is a feasible alternative.

Believing that, I am saying we should proceed as quickly as possible to the liquidation of this tragic mistake. A cease-fire should be the first thing. Senators may say, "Yes, but it takes two to make a cease-fire." It does. That is why I say the chord of this tragic mistake, the reason, I think, that a cease-fire has not been achieved, is the acceptance as our responsibility of the preservation of the Thieu-Ky government.

That government is a government that we established. It is really the heir of the old Diem government, and I do not think that the preservation of it as the result of this war is acceptable to the enemy. Therefore, I say there must be a compromise on this issue similar to the one made by the French in 1954. I am going back to that as a precedent accepted by nine members of the conference at Geneva, representing all of the principal powers with an interest in Vietnam. That is the best precedent I know of. That is what I propose as a matter of advice to the President.

The PRESIDING OFFICER (Mr. EAGLETON in the chair). The Senator's time has expired.

Mr. FULBRIGHT. I ask for 1 more minute.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. FULBRIGHT. I want to say to the minority leader that the President of the United States certainly did not start this war. I thought when he was elected he would take the view that this was a tragic mistake of his predecessor, and that, as a result of the election, he would feel a mandate from the American people to proceed immediately to its liquidation. I thought he had a plan.

I do not see how any plan could succeed or have any effect if that plan involved the preservation of the very objective, one might say, of the war itself, which is the preservation and continuation of the Thieu government. This, it seems to me, is an utterly unrealistic way to look at the war.

I think the President wants to end it. It comes down to what I am suggesting as a matter of judgment, that he should proceed to the principles of the Geneva accords, and I believe he could get a cease-fire and arrange for the release of the prisoners of war, and he could arrange this matter of amnesty or protec-

tion, if you like, of the Catholic leaders. The situation is basically the same as in 1954, when the French were certainly as concerned about the Catholic leaders as you or I are now.

Mr. SCOTT. Mr. President, will the Senator yield?

Mr. FULBRIGHT. I yield.

Mr. SCOTT. Really, the distinguished Senator from Arkansas knows that the President has not made any precondition about the continuation of the Thieu-Ky government. He has said, on May 14, in surely the most generous peace proposal ever made by any nation:

We will, as a condition of peace, abide by a government freely elected by the people of South Vietnam, and that is the only point that is non-negotiable.

Mr. GRIFFIN. Including the votes of the Communists.

Mr. SCOTT. Including the votes of the Communists.

Mr. FULBRIGHT. I know the President has said that in so many words, but the actions he has taken since, and the actions and the words of Thieu himself, completely belie that statement. Those were words which I do not think he has either been able to or desired to follow through on, because subsequent to that, I believe, he said that Mr. Thieu was one of the greatest politicians of the present day, and that our war in Vietnam was one of our finest hours. He said things which seemed to me to be utterly contradictory to whatever the words the Senator has quoted might mean.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. FULBRIGHT. I ask unanimous consent for 1 additional minute.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. FULBRIGHT. This is one of the things that bother me. I do not wish to say that the President is deliberately seeking to confuse anybody. But he is, it seems to me, subject to a change of mind, not only in this field, but I was also rather confused about his attitude toward the electoral college, for example. I had understood him to have one firm position up until yesterday, and all of a sudden, he completely flopped over to another position.

As to Thieu, he said that on the 14th of May, or whatever the date was, and subsequent to that he has said things, I submit, that are absolutely contrary to such words.

Mr. CHURCH. Mr. President, will the Senator yield?

Mr. FULBRIGHT. Mr. President, I ask unanimous consent that I may have 3 more minutes, to yield to the Senator from Idaho.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. CHURCH. Is it not true that President Nixon, at his press conference this past week, reiterated that the one nonnegotiable item of the war was the self-determination of the people of South Vietnam; that he restated his hope free elections could take place; and emphasized that both the government of Saigon and the Government of the United States

would abide by the results of such elections, even if the Communists were elected to power; and is it not also true that the following day, President Thieu held a press conference in which he contradicted the President of the United States, and made it clear that so far as the Saigon government was concerned, it would neither permit Communists to be voted into office, nor would it agree to a coalition embracing all factions in South Vietnam, including the Communist factions? Was not the position of Thieu a direct, explicit contradiction to that stated by the President of the United States, coming almost immediately afterward?

Mr. FULBRIGHT. I believe that is correct. This is what I mean when I say that all the evidence indicates that we are unwilling to abandon the support of the Thieu-Ky government, which means, in effect, that free elections or self-determination are not in the cards. We have not accepted self-determination. Once we accept that, and can give any reasonable assurance of its implementation, I think we could get a cease-fire and be on the way to the liquidation of the war. I do not expect the President to liquidate it tomorrow, but I really want him to begin to move in a serious way toward its liquidation.

Mr. CHURCH. I agree with the Senator, and would only like to add that following Mr. Thieu's direct contradiction of President Nixon, there was no disavowal of any kind from the White House concerning the representations of the President of South Vietnam.

I commend the Senator from Arkansas on his part in the debate today, and I join him in repudiating any attempt to impose 60 days of silence on the matter of the war. This is obviously a ploy.

In my judgment, we have a responsibility, here in the Senate, to continue our efforts to bring this war to a close. I think that the Members of this body, on both sides of the aisle, who have worked so hard for peace in Southeast Asia during the past 4 years, have had an important role to play in changing American policy—the change that brought an end to the continuous escalation of the war, which could well have embroiled the United States in an open-ended war on the mainland of Asia.

I think we must continue to assert that responsibility under this administration, as we did in the last administration; and, as a Democrat who opposed the policies of a Democratic President when Mr. Johnson was in the White House, I certainly do not intend to fall silent now that Mr. Nixon is in the White House; but I do believe that the protest must continue to be asserted on a bipartisan basis, and we must avoid, at all costs, making this a party issue.

Mr. KENNEDY. Mr. President, will the Senator yield?

The PRESIDING OFFICER. The Senator's time has expired.

Mr. KENNEDY. I ask unanimous consent that the Senator from Arkansas may have 3 additional minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

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Mr. FULBRIGHT. I yield.

Mr. KENNEDY. It is my understanding that the President has established three broad criteria for progress in the war in Vietnam. First, he was hopeful that there would be some progress made in Paris. I think, in his press conference last week, he indicated that there had been no progress made in Paris.

Second, he hoped that there would be a reduction of the fighting by the Vietcong and the NVA in the south, and he indicated that, although the intelligence reports now are somewhat indefinite, and although there might be a reduction in the total numbers of infiltrators in the south, still, the level of the fighting by the Vietcong and the NVA in the south has continued; so there is no progress being made in that area.

His third area was the Vietnamization of the war in the south—that there could be the eventual taking over of the war in the south by the South Vietnamese.

If we consider our situation as it exists in that country today—to the effect that really no progress has been made in Paris and that no progress has been made in terms of a reduction of the violence in South Vietnam—it seems to me that the only real hope being offered to the American people is the hope of a growing Vietnamization of the effort in the south.

I saw last weekend a very revealing interview between Mr. Reynolds and Mr. Scali, on ABC's Issues and Answers, with Mr. Thieu in Vietnam. Both of these responsible reporters questioned the President of South Vietnam at considerable length, as to when and under what circumstances the South Vietnamese Army was going to be able to take over the burden of fighting the war.

It was very clear from his response at that time that in spite of the representations which have been made in this country, the United States is going to have to continue with the burden of that war if President Thieu has anything to say about it.

I wonder whether the distinguished Senator from Arkansas believes President Thieu ought to be making the decisions as to how long American boys will stay in that country and be involved in that conflict, fighting and dying in that war, when we have seen so little response by the South Vietnamese Government toward broadening its government to include the other democratic elements in South Vietnam. Consider, for example, the continual harassment of newspapers. More than 30 newspapers have been closed in recent months. The Government continues to jail political opponents who advocate basically and fundamentally the same kind of adjustments in terms of arrangements for the South Vietnamese Government that our President talks about.

I wonder if this troubles the distinguished Senator from Arkansas as it does the rest of us.

Mr. FULBRIGHT. Mr. President, the Senator from Massachusetts is quite right. The words "Vietnamization of the war" seem to mean that we will support

the Thieu government as long as it is necessary for them to establish firmly their control in South Vietnam.

I think they may be able with our help to establish it militarily. I cannot believe that they are likely to do so, but it certainly seems to me that they ought to be given the opportunity to do so only in a free election. This is what I meant by saying that the one condition which is, I think, detrimental to any cease-fire or move toward a political settlement is our being wedded to the Thieu government.

Mr. Thieu has said publicly that he would have nothing to do with the Communists and that it would be 20 or 30 years before they could be rehabilitated or be acceptable in any way—even as voters, I suppose, because they are not allowed to vote now.

The Senator is quite right. I object to our Government's being subject in its foreign policy to other countries around the world. I would object to it in the case of any other country, and I object to it in their case. They have their own life to live, and we ought to allow them to live it.

Mr. KENNEDY. Mr. President, is it the position of the Senator from Arkansas that the interests of the Thieu government in maintaining its posture and position as the Government of South Vietnam may very well not be the same as the interests of the U.S. Government in terms of our presence in South Vietnam?

Mr. FULBRIGHT. I think it is very different. Our interest is, as I said, to liquidate what I consider to be a major, tragic mistake in our involvement there. We misjudged our interest. I do not think that we had a vital interest. However, I do not take that to be a final or fatal misjudgment. Various other countries as individual countries have done it from time to time.

I am interested in getting out before we suffer any further disruption at home or loss of lives abroad.

Those interests are different. Mr. Thieu's interest is in preserving his government. That stands in the way of a settlement. If he could win a free election, I would not object. However, that is not the case.

Mr. KENNEDY. Mr. President, is it the position of the Senator from Arkansas that if Mr. Thieu wants to continue to pursue his own aims and aspirations, he ought certainly to be permitted to do so? But, that he should not pursue them at the expense of the best interests of the United States.

Mr. FULBRIGHT. The Senator is correct.

Mr. KENNEDY. And if Mr. Thieu wants to eliminate the possibility of other democratic groups joining in the government, if he wants to continue his policy with regard to the censorship and repression of newspapers in that country, that whatever kind of leadership he desires for his own country, his government would be permitted to do so by our Government, but that, as I understand it, the Senator from Arkansas is suggesting that we do not have to be involved

in those efforts simply because we are there to protect the right of the people of South Vietnam to have self determination.

I think the Senator is suggesting that those efforts, in this instance, run very much against our own national policy interests in that part of the world.

Mr. FULBRIGHT. It does, because it stands in the way of a political settlement of the war.

THE SUPERSONIC TRANSPORT AIRCRAFT

Mr. BYRD of Virginia. Mr. President, last week, President Nixon proposed the expenditure of \$662 million over the next 5 years for supersonic transport aircraft.

All in all, the cost of development of the SST would run about \$1.5 billion, according to present estimates.

The supersonic transport would be a remarkable plane. It would fly at speeds up to 1,800 miles an hour, would carry 300 passengers and would have a range of up to 5,000 miles. It is easy to see why the President and the aviation industry are enthusiastic about development of this aircraft.

I think, however, that we must bear in mind that there is a proper season for all things.

This does not seem to me to be the proper season for a SST.

In the first place, we are in a highly inflationary period.

I do not believe that the economy has yet recovered from the \$25 billion deficit in Government finances in fiscal 1968. Consumer prices and interest rates continue to soar.

Mr. Nixon wants \$195 million for the SST in the current fiscal year, which would mean an addition of \$96 million to funds appropriated in earlier years.

It seems to me that this is not the time to authorize such a sum for a program that is not essential to our security or to our welfare.

I am struck, too, by the fact that under the present plan, more than 85 percent of the funds required for development of the SST will come from the Government. I do not believe this can be justified.

Aviation manufacturers and the airline industry stand to profit from a SST. I believe that they can be asked to bear considerably more than 15 percent of the financial burden of producing this airplane.

Advocates of immediate development of a SST by this Nation often argue that it is important for the United States to lead the world in aviation. But it is no longer possible for the United States to be first with a SST—it will be at least 5 years behind the version being produced by France and England, and another being developed by the Soviet Union.

Furthermore, experts have testified that sonic booms caused by movement of a SST over land would be so severe that it might have to be restricted to oceanic flight. In review of this, it may be that prestige accruing to a nation by virtue of developing a SST may be overrated.

The President's proposal comes at a time when funds for other important Government programs are extremely short. Just within the field of aviation, it seems to me that airport development and improvements in facilities for control of existing traffic are two areas which rank higher in priority than development of a supersonic aircraft.

If we look beyond aviation to the whole field of transportation, we find a rapidly decaying merchant fleet, insufficient financial support for mass transit and possibly a cutback in highway construction funds.

On a still broader horizon, we must take note of the fact that while proposing millions for the SST, the administration is recommending cuts in important health and education programs.

All of these factors militate against a decision to approve funds for the SST.

But I think the most important single factor is that of inflation. Congress would be setting a poor example for the Nation if it were to approve huge expenditures for the SST at a time when it is vital that the inflationary cycle be halted by getting Federal spending under control.

There may come a time for development of a supersonic transport. That time is not now insofar as Government funds are concerned.

Mr. PROXMIRE. Mr. President, will the Senator yield?

Mr. BYRD of Virginia. I am glad to yield to the distinguished Senator from Wisconsin.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. PROXMIRE. I ask unanimous consent that I may proceed for 3 additional minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PROXMIRE. Mr. President, I commend the distinguished Senator from Virginia on an excellent statement. I agree wholeheartedly with what he has said. He has hit exactly the right note. I am impressed by the fact that he was able to incorporate such a series of important arguments in such a brief statement.

I do think that he has hit upon the most important argument of all when he says that we should recognize that this is a highly inflationary period.

Senators have said this on the floor. The President has made statements about how we have to fight inflation. I think almost everybody agrees that the one way Congress can contribute the most to fighting inflation is to cut spending.

Yet, we get this kind of frill, which has a strictly commercial purpose, which will serve a useful purpose in getting people to Europe 2, 3, or 4 hours earlier, to Asia a few hours earlier; but certainly it is a marginal benefit when we consider all the other things we must do.

I think the Senator has made a most impressive and a most useful statement.

I should like to point out one or two other things in connection with this matter. The Senator from Virginia pointed out that on a cross-country flight, it would not be feasible to fly supersonic speeds because of the sonic boom, and

this has been agreed to by all the experts, the Secretary of the Interior, and others.

Every benefit-cost study, every efficiency study, of the SST shows that it would be economically unfeasible to build it if it could not fly the real payoff routes across the country at supersonic speeds. This is the reason why the aviation industry is insisting that the Federal Government pick up the burden of the cost—85 to 90 percent. The aviation industry does not want the risk. This is the reason why this strictly commercial venture is not being privately financed, as every other commercial venture is privately financed.

Also, the Senate decided, on the basis of a divided vote, to proceed with spending money for research and prototype building for the advance manned strategic aircraft, the supersonic bomber. This is a parallel kind of procedure so far as technological breakthrough is concerned. The supersonic transport has no military value. Every Secretary of Defense has argued that it has no military value. If we are going to spend money in this area, the advance manned strategic aircraft is where we ought to spend it.

I also point out that the argument of the balance-of-payments benefit works both ways. If we build the kind of big fleet of supersonic transports that only the United States can build, they will carry American tourists flying abroad to spend American money, to worsen our balance of payments.

Finally, the only argument I have heard that we should proceed—which the advocates keep coming back to—is that this is necessary for our prestige; it is necessary for us to have the kind of prestige that only the supersonic transport can provide. We just landed men on the moon, the principal value of which is prestige. We have by far the dominant aviation industry in the world. Our Air Force is superior to the air force of any other nation. To argue that this is necessary for prestige is a very feeble reed on which to hang this kind of appropriation, especially when we recognize that it is going to cost \$600 million, which is more than the administration is asking—much more—for mass transit throughout the United States.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. PROXMIRE. I ask unanimous consent that I may proceed for 1 additional minute.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PROXMIRE. In other words, all the cities in the country are going to get less for their subways, bus services, and all the other vital means of transporting people into the cities than will be spent to get a small percentage of the American people overseas.

I thank the Senator for his excellent statement.

Mr. BYRD of Virginia. I thank the Senator from Wisconsin for his comments. He has made a deep study of this subject, and I feel that he has added greatly to the understanding of the Senate as to just what is involved in the development of a supersonic aircraft and

the Government's part in that development.

I concur in the remarks the Senator just made as to the importance of other types of transportation—mass transit and other transportation needs of our Nation which cannot be met now under the existing budgetary arrangements.

So it seems to me, just as it does to the distinguished and able senior Senator from Wisconsin, that this is not the time to be plowing hundreds of millions of dollars into the development of a supersonic transport. We must first put our Nation's financial house in order. We must first get Federal spending under control.

I thank the distinguished Senator from Wisconsin for his valuable comments.

ASSISTANT ATTORNEY GENERAL JERRIS LEONARD SHOULD RESIGN OR ENFORCE THE LAW

Mr. YOUNG of Ohio. Mr. President, questions of ethical conduct preceding the resignation of Associate Supreme Court Justice Fortas and today involving the nomination of Judge Clement Haynsworth to be Associate Justice of that Court make it abundantly clear that Attorney General John Mitchell maintains a double standard regarding ethical conduct for the Federal judiciary. Now there appears to be a curious double standard in the Justice Department insofar as the term "law and order" is concerned.

In a speech before the International Association of Chiefs of Police at Miami Beach on September 29, Attorney General Mitchell described himself as "foremost, a law-enforcement officer." In what the Washington Post reported as a "hard-line law-and-order speech," Mitchell declared:

I believe the Department of Justice is a law-enforcement agency. I think that persons who break the law ought to be promptly arrested and tried—today.

Meanwhile, in Washington, the Nixon administration's chief civil rights lawyer made the shocking statement that if the Supreme Court should rule in a pending case that schools throughout the South must integrate immediately, such orders could not be enforced.

Referring to an appeal that the Supreme Court has already agreed to consider on an accelerated schedule, Assistant Attorney General Jerris Leonard declared:

If the Court were to order instant integration nothing would change. Somebody would have to enforce that order.

Leonard said there just are not enough "bodies and people" in the Civil Rights Division of the Justice Department "to enforce that kind of decision."

Mr. President, the remarks of Assistant Attorney General Leonard raised the possibility that the Supreme Court could find itself, for the first time since it declared public school segregation unconstitutional in 1954, in the position of issuing a school desegregation order without full expectation that it would be enforced by the executive branch.

It is noteworthy that 65 of the 74 lawyers in the Civil Rights Division issued a statement on Monday charging the

administration with taking positions on civil rights policy that are "inconsistent with clearly defined legal mandates." The Washington Post of September 30 reported that several of the attorneys attending the news conference at which Leonard made his remarks later stated they were astonished to hear him repeatedly blame insufficient legal manpower in the Department of Justice for not accelerating the pace of desegregation enforcement.

One attorney said:

That must have been dreamed up over the weekend. The Division has had less people and never blamed lack of people for lack of action.

Many expressed concern that Leonard's statement would invite opponents of integration—opponents of the law of the land—"to make enough noise so that the Nixon administration might slow desegregation still further."

Mr. President, it appears that officials of the Department of Justice in this administration have one definition of law enforcement when they speak of criminals and quite another when they speak of civil rights. On the one hand, the Attorney General of the United States refers to himself as "foremost, a law-enforcement officer." On the same day, his Assistant Attorney General openly states that the Justice Department would be incapable of enforcing a Supreme Court decision—which is, of course, the law of the land—insofar as civil rights are concerned. Such hypocrisy cannot and must not be tolerated in our democracy.

How can respect for law and order in our Nation be maintained when the Justice Department itself refuses, or is unable, to enforce a decision of the Supreme Court of the United States?

It is shocking to consider that officials of the Justice Department would be unable to enforce a Supreme Court decision to protect the civil rights and civil liberties of all Americans. The position taken by Assistant Attorney General Leonard represents a cynical, callous attitude toward civil rights problems.

I, for one, am tired of this hypocrisy on the part of high officials in the Justice Department. I am certain that millions of Americans share my deep concern over the gradual erosion in enforcement and implementation of civil rights laws.

If the Attorney General is, as he states, "foremost, a law-enforcement officer"—and I believe that he is—then certainly it is his duty to enforce the law of the land whether or not he or his Assistant Attorney General or this administration or supporters of this administration are in agreement with it. To do otherwise would be to seriously undermine respect for law and order in our Nation.

The difference between the American way of life and the Communist dictatorship of Russia and Red China is the difference between government of law and government of men. In the Red Square in Moscow, what do they have on display under glass? The embalmed corpse of Lenin. In the beautiful Archives Building in Washington, what do we have on display? We proudly display under glass the Constitution of the United States and the Bill of Rights.

This illustrates the difference between government of men and government of law. Our freedom and democracy rest entirely on our heritage of respect for the law. When one of the top law-enforcement officials in the land speaks of not enforcing the law, he is doing a disservice to the Nation.

Mr. President, I do not know what action the Supreme Court of the United States will take in regard to the pending appeal of a desegregation delay that was granted to 30 Mississippi school districts at the request of the Nixon administration. I do know that whatever that decision may be, it must be enforced.

If Assistant Attorney General Jerris Leonard cannot, or will not, enforce any such decision, then he should resign and be replaced with someone who can and will uphold the law.

Mr. President, in this morning's issue of the New York Times is an excellent editorial entitled "Retreat From the Law," setting forth clearly and concisely the inherent dangers in the position taken by Assistant Attorney General Leonard which invites resort to mass disruptions as a substitute for the essential faith of our people in justice under a government of law. I ask unanimous consent that this editorial in its entirety be printed in the RECORD as a part of my remarks.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

RETREAT FROM THE LAW

The warning by Jerris Leonard, chief of the Justice Department's Civil Rights Division, that a Supreme Court order to desegregate all Southern schools could not be enforced strikes at the foundation of government by law. It is astonishing as the declared stance of an Administration that, in its rhetoric, has so consistently vowed to uphold law and order.

With every new corkscrew turn of policy, the Nixon Administration demonstrates that its approach to school desegregation is more responsive to the prejudices of Southern politicians than to the legitimate demands to put an end to the illegally maintained dual school systems.

This is why the Justice Department's civil rights lawyers rebelled against the policies they were being asked to pursue. It is why the United States Commission on Civil Rights spoke out against the threat of a major retreat from desegregation. And it spurred the decision of the N.A.A.C.P. Legal Defense and Educational Fund to ask the Supreme Court to redefine "all deliberate speed" to keep that phrase from being perverted into a device for delay.

The plain fact is that the Court spoke fifteen years ago and Congress added in 1964 its mandate for the enforcement of administrative guidelines. For Mr. Leonard, at this late stage, to urge his lawyers to concentrate not on prompt enforcement but on organizing teachers' workshops to smooth the way for desegregation is comparable to asking the Internal Revenue Service to provide courses in ethics and accounting for income-tax evaders.

The Nixon Administration has asked Negroes to accept in good faith its pledges of economic and social justice, but the credibility of such pledges is undermined by the emergence of double standards. The President himself, in opposing "extremism" in school desegregation, equates those who insist on full law compliance with the most stubborn of foot-draggers.

Attorney General Mitchell promises the nation's police chiefs that the Administration will support law enforcement with "all its moral, political and economic power." And on the very same day Assistant Attorney General Leonard scoffs at the thought of enforcing a Supreme Court school desegregation order. Such contradictions can only reinforce Negro suspicions of separate justice for black and white, thus inviting resort to mass disruption as a substitute for the essential faith in justice under a government of law.

ORDER OF BUSINESS

Mr. CRANSTON. Mr. President, I ask unanimous consent that I may proceed for 10 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

THE PROPOSED AMCHITKA TESTS

Mr. CRANSTON. Mr. President, tomorrow the Atomic Energy Commission plans to detonate a nuclear device, of the magnitude of 1 megaton, 4,000 feet below the surface of Amchitka Island in the Aleutians.

This calibration test, in preparation for four larger explosions of up to 5 megatons, is scheduled to take place in one of the most seismically unstable areas on this planet.

Many of the Pacific Basin's most severe earthquakes—quakes which have caused tidal waves with subsequent damage to property and loss of life as far away as Hawaii, Japan, and the western coast of the United States—have originated in the immediate vicinity of Amchitka.

The AEC has continued its preparations for these underground tests despite the opinions of leading scientists that it is unwise to detonate such powerful devices in a region which is extremely earthquake prone.

My distinguished colleague from Alaska (Mr. GRAVEL) was justifiably alarmed by the plans to utilize Amchitka for this Nation's most devastating underground tests.

I have worked closely with him in this matter and joined with him in his sponsorship of Senate Joint Resolution 155 because I felt that an independent scientific commission to study the foreign policy aspects of our underground testing program is needed before such tests should take place.

I admire the leadership, skill, and determination the Senator from Alaska (Mr. GRAVEL) has brought to bear upon this Amchitka affair.

Amchitka's remoteness from the continental United States does not insure that Canada, Japan and the Soviet Union would be safe from possible shocks, tidal waves or quakes following the explosions.

Both the Canadians and the Japanese have formally expressed to the State Department their apprehensions concerning these tests.

They have served notice that we will be held responsible for any damage done to their people and their property.

Yesterday in Ottawa, Canada's external affairs minister, Mitchel Sharp, repeated his plea that we abandon plans for the blast, and he described the protest

note he earlier sent to us as "extremely strong."

Much of the American public and many members of the scientific community are equally disturbed by the prospect of testing on Amchitka.

Dr. Kenneth Pitzer, president of Stanford University and head of a panel of eminent scientists appointed by President Johnson to examine the relationship between underground tests and earthquakes, expressed grave doubts to the foreign relations committee concerning the desirability of having these tests.

Dr. Pitzer stated that his panel was seriously concerned with the problems of earthquakes resulting from large-yield nuclear tests because new and significant evidence demonstrates that small earthquakes do actually occur both immediately after a large-yield test explosion and in the following weeks.

I have just been informed that President Nixon's science advisers have endorsed the conclusions of the Pitzer Commission.

The AEC has no right to make a final decision to proceed with these tests, in a secret fashion, using undisclosed scientific evidence, without an independent examination of their work by other scientists who have no connection with the AEC.

No group of scientists working in secret has the right to play nuclear roulette with the lives and property of the people in the Northern Pacific Basin. The AEC has seemingly acknowledged, in one small sense, the gravity and dimensions of the potential consequences of the step it is so determined to take. It has placed an announcement in the Federal Register warning U.S. citizens away from a 7,800 square mile nautical area centering on the test site.

As it now stands, the United States is going to begin to detonate underground nuclear devices of great power at a new facility located in a remote but sensitive area.

At a time when our Government has not ratified the Nuclear Nonproliferation Treaty yet asks others to do so, the Amchitka tests are diplomatically unwise.

Our search for nuclear nonproliferation appears to lack sincerity as we embark upon a significant expansion of our underground testing program.

I call upon the administration to postpone the Amchitka tests and to reevaluate the scientific and diplomatic feasibility of testing nuclear devices in the Aleutians.

I know that the people of California, Alaska, Hawaii, Canada and Japan join me in hoping that these unwise, unsafe and scientifically unsound tests will not occur.

Mr. GRAVEL. Mr. President, will the Senator yield?

Mr. CRANSTON. I am delighted to yield to the Senator, who has displayed such effective leadership in seeking to point out the course upon which we are presently embarked.

Mr. GRAVEL. Mr. President, I wish to associate myself with the remarks of the Senator from California. I also thank him for his fine assistance on what I think is a very vital incident—possibly

it could be a very tragic incident in the history of the United States—that will take place tomorrow.

I would like to endorse a few of the points that have been mentioned by my distinguished colleague and to add some additional material from my experience.

First, I think it is important to realize that these tests are calibration tests; that is, we are going to start out with 1 megaton, then go to 2 megatons, then go to 3 megatons, then go to 4 megatons, and then go to 5 megatons. Until something happens, we are just going to stay with that testing program. For purposes of illustration, such a program of testing is like strapping a man into an electric chair, then starting with 1,000 volts, if nothing happens go to 2,000 volts, if nothing happens go to 3,000 volts, and then, when we kill the man in the chair we stop testing. That is the type experimentation we are proceeding with.

Mr. President, I would like to try to assess the possible chain reaction that may take place. We are testing in one of the most seismically active areas of the world, the Aleutian Chain fault. One of these explosions, or one of these underground nuclear detonations—the AEC calls them devices, but they are really bombs—one of these explosions could cause an earthquake. I say "could," because at one time the AEC said categorically that underground detonations do not cause earthquakes.

In January 1968, an explosion in Nevada triggered hundreds of earthquakes afterward. Yet in August of the same year the AEC was still singing the same tune; that is, that underground detonations do not cause earthquakes.

The earthquake that may be caused at Amchitka could cause a slippage of ground. If the slippage is sufficient, it could cause a tidal wave. The explosion in Nevada caused a 15-foot slippage. If such a slippage occurred on Amchitka, it could cause a tidal wave that could strike any one of numerous places: Hawaii; Japan; Anchorage, Alaska; California; Vancouver, British Columbia.

In 1964, a tidal wave started in Alaska's Prince William Sound after an earthquake with a Richter scale reading of 8.4. That tidal wave traveled the Pacific Rim and sought out one town in California, Crescent City, 2,000 miles away; where 13 people were killed, and \$12 million worth of damage was caused.

In 1956, a tidal wave that started not far from Amchitka traveled all the way to Hawaii, killing more than 150 people and causing more than \$25 million of damage. These are the risks we are playing with.

As the Senator from California says, we turn the chamber and pull the trigger. It could come up blank on Thursday. But will it come up blank on next year's tests or the tests after that?

The PRESIDING OFFICER (Mr. EAGLETON in the chair). The time of the Senator from Alaska has expired.

Mr. GRAVEL. Mr. President, will the Senator from California yield me another 5 minutes?

Mr. CRANSTON. I yield 5 additional minutes to the Senator from Alaska.

The PRESIDING OFFICER. Five ad-

ditional minutes are yielded to the Senator from Alaska.

Mr. GRAVEL. After a tidal wave begins, that danger exists.

There is another danger, the escape of radioactivity. We raised the question in testimony on Monday before the scientists of the AEC.

I suggested that since the area is earthquake prone, there are countless fissures or faults in the earth. They said that that was possible, but there could be no danger of venting.

But what could happen if a vent occurred? This particular area happens to hold one of the largest fisheries on earth, fisheries used by Canada, Japan, Korea, and the United States—you name them. All these countries feed off this area. There is a possibility of contaminating that great fishery, not to say, of course, the fact that the detonation would be a violation of the nuclear test ban treaty, which would place this country in what I imagine could be unenviable international position. So I hope the State Department will reevaluate the possibilities.

Amchitka is closer to Russian territory than to any other foreign country. Yet, interestingly enough, our closest friends, Canada and Japan, have voiced their concern over the possible danger. But the Soviet Union sits back. If danger should occur, she will be in a more favorable juxtaposition to us.

The international ramifications are well known. But I would suggest another area. The Senator from California mentioned the Pitzer report. The Pitzer panel was created by the President's Science Advisory Committee, not the AEC. They initially objected to such an explosion. That report was finished in November 1968. It was held by the AEC and the White House until last Monday, when it was released at 7 o'clock in the morning, and our committee held hearings at 10 o'clock that morning. That report was made by eminent scientists. But here is the entire book in which it was published. It was published with 48 preceding pages of denigration of the report, and 10 pages of report. I submit that in this fashion it is calculated to undermine the credibility of an official group of authorities, and was held secret over a period of time to thwart informed public opinion in this country, because had the report come out last January, people like myself and other concerned citizens would have been able to rely on it and use it to challenge the secrecy and credibility of the AEC. But to give it to us only a few days before the test was to deny us a proper tool that we should have had to enable us to develop a broad dialog in this country concerning possible risks.

Just recently—today—the President was asked if he intended to delay the test. President Nixon said he was not going to delay the test; that he would rely on the advice that had been received from the AEC. I submit that that advice is in conflict, as the Senator from California just mentioned, with the advice of the President's own Science Advisory Committee. He is flying in the face of that advice and is willing to rely exclusively on the AEC, which I think has

been discredited as an honest information-giving agency. The AEC pursues its own course. I submit that it structures its information to arrive at the conclusions it prefers.

If there is tragedy tomorrow, and if there is a loss of life, the blame will lie with the President of the United States, and no one else, because he is the only one who can stop the test now, and he has chosen not to, based upon the advice he is willing to choose to accept.

I pray that there will not be a tragedy tomorrow. But I think that if we pursue this course, there will one day be a serious tragedy. When that tragedy occurs, and we look back and find incompetence, and secrecy, and see the way this project was mismanaged and how the tragedy occurred, it will make the Dreyfus affair look like small-town gossip.

The PRESIDING OFFICER. The additional time yielded to the Senator has expired.

Mr. GRAVEL. I pray that the President of the United States will consider this matter.

I yield the floor.

Mr. CRANSTON. Mr. President, I join in those prayers and hope the President will respond wisely.

EXECUTIVE COMMUNICATIONS, ETC.

The ACTING PRESIDENT pro tempore laid before the Senate the following letters, which were referred as indicated:

PROPOSED LEGISLATION PROVIDING FOR THE CONTINUATION OF FEDERAL AGRICULTURAL SERVICES TO GUAM

A letter from the Acting Secretary, Department of Agriculture, transmitting a draft of proposed legislation to provide for the continuation of Federal agricultural services to Guam (with accompanying papers); to the Committee on Agriculture and Forestry.

REPORT OF LOAN TO EAST RIVER ELECTRIC POWER COOPERATIVE, INC., MADISON, S. DAK.

A letter from the Administration, Rural Electrification Administration, United States Department of Agriculture, reporting, pursuant to law, a loan to the East River Electric Power Cooperative, Inc., of Madison, South Dakota (with accompanying papers); to the Committee on Appropriations.

REPORT OF THE COMPTROLLER GENERAL

A letter from the Comptroller General of the United States, transmitting, pursuant to law, a report on the effectiveness and administrative efficiency of the Department of Labor's Neighborhood Youth Corps program in Detroit, Mich., under title IB of the Economic Opportunity Act of 1964, Department of Labor, September 30, 1969 (with an accompanying report); to the Committee on Government Operations.

REPORT OF PROPOSED CONTRACT WITH MONSANTO RESEARCH CORP.

A letter from the Director, Bureau of Mines, U.S. Department of the Interior, transmitting, pursuant to law, a proposed contract with Monsanto Research Corp., 800 N. Lindbergh Boulevard, St. Louis, Mo., for research and development to study foam properties and to develop foam generation and foam application systems that will collect coal dust while maintaining an enveloping blanket of foam (with accompanying papers); to the Committee on Interior and Insular Affairs.

EXECUTIVE REPORTS OF COMMITTEES

As in executive session, the following favorable reports of nominations were submitted:

By Mr. YARBOROUGH, from the Committee on Labor and Public Welfare:

Nancy Hanks, of New York, to be Chairman of the National Council on Arts.

By Mr. RANDOLPH, from the Committee on Public Works:

L. Ralph Mecham, of Utah, to be Federal cochairman of the Four Corners Regional Commission.

By Mr. EASTLAND, from the Committee on the Judiciary:

Stanley G. Pitkin, of Washington, to be U.S. attorney for the western district of Washington;

Bart M. Schouweiler, of Nevada, to be U.S. attorney for the district of Nevada;

Rex Walters, of Idaho, to be U.S. marshal for the district of Idaho;

George R. Tallent, of Tennessee, to be U.S. marshal for the western district of Tennessee;

William A. Quick, Jr., of Virginia, to be U.S. marshal for the western district of Virginia;

Edward R. Neaheer, of New York, to be U.S. attorney for the eastern district of New York;

Gaylord L. Campbell, of California, to be U.S. marshal for the central district of California.

Duane K. Craske, of Guam, to be U.S. attorney for the district of Guam;

William W. Milligan, of Ohio, to be U.S. attorney for the southern district of Ohio;

Blas C. Herrero, Jr., of Puerto Rico, to be U.S. attorney for the district of Puerto Rico;

Rex K. Baumgardner, of West Virginia, to be U.S. marshal for the northern district of West Virginia; and

James H. Brickley, of Michigan, to be U.S. attorney for the eastern district of Michigan.

By Mr. SCOTT, from the Committee on the Judiciary:

Arlin M. Adams, of Pennsylvania, to be U.S. circuit judge, third circuit.

BILLS INTRODUCED

Bills were introduced, read the first time, and, by unanimous consent, the second time, and referred as follows:

By Mr. CASE:

S. 2977. A bill to enlarge the boundaries of Grand Canyon National Park in the State of Arizona, and for other purposes; to the Committee on Interior and Insular Affairs.

(The remarks of Mr. CASE when he introduced the bill appear later in the RECORD under the appropriate heading.)

By Mr. GORE:

S. 2978. A bill for the relief of Waguth Gharghour (Guy Gargour); to the Committee on the Judiciary.

By Mr. DOMINICK (for himself, Mr.

RIBICOFF, Mr. ALLOTT, Mr. BELLMON, Mr. BIBLE, Mr. BAKER, Mr. BOGGS, Mr. CANNON, Mr. COTTON, Mr. CURTIS, Mr. DODD, Mr. DOLE, Mr. EASTLAND, Mr. FANNIN, Mr. FONG, Mr. GRIFFIN, Mr. HANSEN, Mr. HARRIS, Mr. HART, Mr. HRUSKA, Mr. JORDAN of Idaho, Mr. MUNDT, Mr. MURPHY, Mr. PACKWOOD, Mr. PERCY, Mr. PROUTY, Mr. PROXMIER, Mr. SMITH of Illinois, Mr. STEVENS, Mr. RANDOLPH, Mr. THURMOND, Mr. TOWER, Mr. YOUNG of North DAKOTA, Mr. NELSON, Mr. MCGOVERN, and Mr. SPARKMAN):

S. 2979. A bill to amend the Internal Revenue Code of 1954 to allow a credit against income tax to individuals for certain expenses

incurred in providing higher education; to the Committee on Finance.

(The remarks of Mr. DOMINICK when he introduced the bill appear later in the RECORD under the appropriate heading.)

By Mr. TYDINGS (by request):

S. 2980. A bill to provide that any person operating a motor vehicle within the District of Columbia shall be deemed to have given his consent to a chemical test of his blood, breath, or urine, for the purpose of determining the alcoholic content of his blood, to prohibit shoplifting in the District of Columbia, to prohibit the theft, unauthorized use, and abuse of credit cards in the District of Columbia, and for other purposes; to the Committee on the District of Columbia.

(The remarks of Mr. TYDINGS when he introduced the bill appear later in the RECORD under the appropriate heading.)

By Mr. TYDINGS (by request) (for Mr. PROUTY and Mr. MATHIAS):

S. 2981. A bill to revise the laws of the District of Columbia on juvenile court proceedings; to the Committee on the District of Columbia.

By Mr. JAVITS (for himself and Mr. GOODELL):

S. 2982. A bill to provide for the establishment under all Federal child-feeding programs eligibility standards which require that free or reduced price meals be served to certain children, and for other purposes; to the Committee on Agriculture and Forestry.

(The remarks of Mr. JAVITS when he introduced the bill appear later in the RECORD under the appropriate heading.)

S. 2977—INTRODUCTION OF A BILL ENLARGING GRAND CANYON NATIONAL PARK

Mr. CASE. Mr. President, I introduce, for appropriate reference, a bill to enlarge Grand Canyon National Park.

Almost 70 years ago President Theodore Roosevelt said:

I want to ask you to do one thing in connection with the Grand Canyon . . . leave it as it is, you cannot improve on it. The ages have been at work on it and man can only mar it . . . What you can do is keep it for your children . . . and for all who come after you.

Until last year, our struggle has been to prevent man's marring the Grand Canyon by the construction of giant dams in connection with a water project for central Arizona. I was glad to join in the battle against them. In my view placement of the dams in the canyon would be an unthinkable violation of a truly unique wonder of nature. Fortunately, Congress agreed with this view and found a way to provide the water and keep the canyon free from dams.

At that time Senator JACKSON, chairman of the Senate Interior Committee, agreed with me that consideration should be given to extending the national park.

Since I first introduced a park extension bill in 1967, further research has indicated the desirability of protecting the important side canyons and plateau areas that are needed to make an intelligible whole of the canyon. In line with this, the bill I introduce today includes the following:

First, the main stream of the canyon—including all potential damsites in Marble Gorge and the Lower Granite Gorge—from Lees Ferry to the Grand Wash Cliffs;

Second, The major side canyons: Paria, Kanab, Havasu, Whitmore, and Parashant;

Third, the significant sections of the north rim plateaus: Kaibab, Uinkarets, and Shivwits; and

Fourth, Toroweap Valley, one of the most remarkable approaches to the canyon rim, in an area of interesting volcanic remnants.

My bill will expand the national park from its present 673,575 acres to one consisting of 2.14 million acres. The extended park also will include the lands which comprise both the Grand Canyon and the Marble Canyon National Monuments, which together total over 200,000 acres.

Some 40,000 acres of private land will be included in the park I propose. According to an estimate made by the Sierra Club, the private land would cost under \$4 million to acquire.

The 50,000 acres of State-owned land included in the boundaries of the park could be acquired by purchase, donation, or exchange. My bill expressly provides that they not be acquired by condemnation.

Under the "taking" provision in the bill, privately owned land would, immediately upon the enactment of the measure, become Federal land, with the owners recompensed at then-prevailing prices. This would prevent the artificial ballooning of land prices that has plagued Federal acquisition of parkland in the past.

Since much of the area is wild, my bill includes a study to determine whether any portions of the park should be recommended for inclusion in the national wilderness system. My bill would also repeal any permission for reclamation projects within the national park.

Under this bill, no land of the Havasupai, Hualapai, or Navajo Tribes would be taken for the expanded park.

In the past I have quoted the remark made more than 30 years ago by J. B. Priestley that "every member or officer of the Federal Government ought to remind himself, with triumphant pride, that he is on the staff of the Grand Canyon." As "staff members," we have discharged only part of our responsibility for the protection of the Grand Canyon. We have saved it from the dams.

Congress now must move to discharge the remainder of its responsibility by placing the main stream of the canyon as well as associated areas in a complete Grand Canyon National Park.

Mr. President, the question has been asked: What should a complete Grand Canyon National Park include? Jeffrey Ingram, former southwest representative of the Sierra Club and a man thoroughly familiar with the Grand Canyon, has sought to answer the question in a paper recently brought to my attention. It is a most perceptive and compelling statement and I ask unanimous consent that it be printed in the RECORD after my remarks.

I also ask unanimous consent that the text of the bill be printed in the RECORD.

The PRESIDING OFFICER. The bill will be received and appropriately referred; and, without objection, the state-

ment and text of the bill will be printed in the RECORD.

The bill (S. 2977), to enlarge the boundaries of Grand Canyon National Park in the State of Arizona, and for other purposes, introduced by Mr. CASE, was received, read twice by its title, referred to the Committee on Interior and Insular Affairs, and ordered to be printed in the RECORD, as follows:

S. 2977

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Grand Canyon National Park shall hereafter comprise the area generally depicted on the drawing entitled "Grand Canyon National Park", numbered 113-91,001 and dated June 1969. The drawing shall be on file and available for public inspection in the offices of the National Park Service, Department of the Interior.

SEC. 2. Nothing in this Act or in any other law shall affect (1) the rights of the individual members of the Havasupai tribe of Indians as described in the Executive order of March 31, 1882, and in section 3 of the Act of February 26, 1919, to use and occupy lands within the Grand Canyon National Park for agricultural purposes, including grazing; or (2) the authority of the Secretary of the Interior (hereinafter referred to in this Act as the "Secretary") under section 3 of the Act of February 26, 1919, to permit such members to so use and occupy such lands for such purposes.

SEC. 3. Except to the extent otherwise provided in section 2 of this Act, where any Federal lands included within the Grand Canyon National Park are legally occupied or utilized on the date of the enactment of this Act for grazing purposes, pursuant to a lease, permit, or license issued or authorized by any department, establishment, or agency of the United States, the Secretary of the Interior shall permit the persons holding such grazing privileges on such date of enactment, their heirs, successors, or assigns, to renew the privileges from time to time subject to such terms and conditions as the Secretary may prescribe; except that no such privilege shall be extended beyond the period ending twenty-five years from such date of enactment except as specifically provided for in this section. The Secretary shall permit a holder of the grazing privilege to renew such privilege from time to time during the holder's lifetime beyond the twenty-five year period, subject to such terms and conditions as the Secretary may prescribe, if (1) the holder is the person who held such privilege on the date of enactment of this Act, or (2) the holder is the heir, successor, or assign of such person and was a member of that person's immediate family, as determined by the Secretary of the Interior, on the date of enactment of this Act. Nothing contained in this section shall be construed as creating any vested right, title, interest, or estate in or to any of the Federal lands. The Secretary, by regulation, may limit the privileges enjoyed under this section to the extent that they are appurtenant to the private lands owned by the persons who held such privileges on the date of enactment of this Act, and may adjust such privileges to preserve the park land and resources from destruction or unnecessary injury. Grazing privileges appurtenant to privately owned lands located within the Grand Canyon National Park shall not be withdrawn until title to lands to which such privileges are appurtenant shall have vested in the United States, except for failure to comply with the regulations applicable thereto and after reasonable notice of any default.

SEC. (a) The Secretary is authorized to acquire lands and interests in lands within the boundaries of the Grand Canyon Na-

tional Park. Such acquisition may be by donation, purchase with appropriated or donated funds, exchange, or otherwise, but in no event shall lands owned by the State of Arizona or any political subdivision thereof be acquired by condemnation.

(b) (1) Effective on the date of enactment of this Act, there is hereby vested in the United States all right, title, and interest in, and the right to immediate possession of, all real property within the park boundaries designated on the drawing entitled "Grand Canyon National Park", Numbered 113-91,001; except real property owned by the State of Arizona or a political subdivision thereof and except as provided in paragraph (3) of this subsection. The Secretary shall allow for the orderly termination of all operations on real property acquired by the United States under this subsection, and for the removal of equipment, facilities, and personal property therefrom.

(2) United States shall pay just compensation to the owner of any real property taken by paragraph (1) of this subsection. Such compensation shall be paid either (A) by the Secretary of the Treasury from money appropriated from the Land and Water Conservation Fund, upon certification to him by the Secretary of the Interior of the agreed negotiated value of such property, or the valuation of the property awarded by judgment, including interest at the rate of 6 per centum per annum from the date of taking the property to the date of payment therefor; or (B) by the Secretary of the Interior, if the owner of the land concurs, with any federally owned property available to the Secretary for purposes of exchange pursuant to the provision of section 6 of this Act; or (C) by the Secretary of the Interior using any combination of such money or federally owned property. Any action against the United States for the recovery of just compensation for the land and interests therein taken by the United States by this subsection shall be brought in the Court of Claims as provided in section 1491 of title 28, United States Code.

(3) Section 4(b) shall apply to ownerships of fifty acres or less only if such ownerships are held or occupied primarily for nonresidential or nonagricultural purposes, and if the Secretary gives notice to the owner within sixty days after the date of the enactment of this Act of the application of this subsection. The district court of the United States for that district in which such ownerships are located shall have jurisdiction to hear and determine any action brought by any person having an interest therein for damages occurring by reason of the temporary application of this paragraph, between the date of the enactment of this Act and the date upon which the Secretary gives such notice. Nothing in this paragraph shall be construed as affecting the authority of the Secretary under subsections (a) and (c) of this section to acquire such areas for the purposes of this Act.

(c) If any individual tract or parcel of land acquired is partly inside and partly outside the boundaries of the park the Secretary may, in order to minimize the payment of severance damages, acquire the whole of the tract or parcel and exchange that part of it which is outside the boundaries for land or interests in land inside the boundaries or for other land or interests in land acquired pursuant to this Act, and dispose of so much thereof as is not so utilized in accordance with the provisions of the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended (40 U.S.C. 471 et seq.).

Sec. 5. In exercising his authority to acquire property by exchange, the Secretary may accept title to any non-Federal property within the boundaries of the park, and outside of such boundaries within the limits prescribed in this Act. Notwithstanding any other provision of law, the Secretary may acquire such property from the grantor by ex-

change for any federally owned property under the jurisdiction of the Bureau of Land Management in Arizona, except property needed for public use and management, which he classifies as suitable for exchange or other disposal. Such federally owned property shall also be available for use by the Secretary of the Interior in lieu of, or together with, cash in payment of just compensation for any real property taken pursuant to section 4(b) of this Act. The values of the properties so exchanged either shall be approximately equal or, if they are not approximately equal, the value shall be equalized by the payment of cash to the grantor or to the Secretary as the circumstances require. Through the exercise of his exchange authority, the Secretary shall, to the extent possible, minimize economic dislocation and the disruption of the grantor's commercial operations.

Sec. 6. Notwithstanding any other provision of law, any Federal property located within any of the areas described in the drawing entitled "Grand Canyon National Park", numbered 113-91,001, may, with the concurrence of the head of the agency having custody thereof, be transferred without consideration to the administrative jurisdiction of the Secretary for use by him in carrying out the provisions of this Act.

Sec. 7. Within two years from the date of the enactment of this Act, the Secretary of the Interior shall review the areas within the Grand Canyon National Park, and shall report to the President, in accordance with sections 3(c) and 3(d) of the Wilderness Act (78 Stat. 890; 16 U.S.C. 1132(c) and (d)), his recommendation as to the suitability or nonsuitability of any such areas within the park for preservation as wilderness, and any designation of any such area as a wilderness area shall be accomplished in accordance with such sections of the Wilderness Act.

Sec. 8. Subject to valid existing rights in such lands, all lands herein added to Grand Canyon National Park by this Act shall, except to the extent otherwise provided by this Act, be subject to all the laws and regulations applicable to that park immediately prior to the effective date of this Act.

Sec. 9. Section 7 of the Act of February 26, 1919 (40 Stat. 1175; 16 U.S.C. 227), is hereby repealed.

Sec. 10. The provisions of the Federal Power Act shall not apply to any portion of Grand Canyon National Park as hereby enlarged, and all existing withdrawals of the Federal Power Commission within the enlarged park are hereby vacated, and all withdrawals of the Bureau of Reclamation within the enlarged park, other than those related to Hoover Dam and Glen Canyon Dam, are hereby vacated.

Sec. 11. There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

The statement furnished by Mr. CASE follows:

WHAT IS A GRAND CANYON ANYWAY?

(By Jeffrey Ingram)

The dangers in answering this question arise from the desire to draw a line which puts Grand Canyon on one side and everything else on the other. This line becomes lost in the subtleties of side canyons' beginnings and the vagaries of land forms. The strength of a river is given by the volume of water gathered by its drainage; the river's velocity by the elevation it must drop down through; its capacity to grind by the stones and soil it picks up; its direction by the differential in hardness of the rock it confronts. A river makes a path for itself across the land, but the track is shaped by the way the rock has been laid and formed, raised and broken. The water corrodes out the land's forms; the land determines the river's course and force.

What to include, of the process and record that is a drainage and that becomes a canyon, within the boundary of the Grand Canyon?

Surely the main stem: from the end of Glen Canyon, where the Kaibab limestone first crops out, to the Grand Wash, where almost 300 miles of wall turn away from the Colorado River?

Surely the side canyons: the great ones like Kaibab, with its own world of tributaries, the Little Colorado, Havasu, the Paria; then the multitude, unclassifiable in their variety of size, sinuosity, color, rock texture, and name: Whitmore, Soap, Nankowep, Hindu, Tapeats, National, Bass, Burnt Springs, Thunder, Separation, Parashant, Horse Flat, Bright Angel, Tuckup, Shinumo.

Surely the plateaus, whose rise brought two billion years of earth's history up for the Colorado to reveal, and whose heights make possible the Canyon's display of variation in plants and animals: Kaibab and Shivwits that look as if they have shunted the Colorado into immense southern arcs; Paria and Kaibito whose cliffs bound the platform through which the Colorado cut the Canyon's Marble Gorge; Kanab, Coccino, Uinkaret.

Such a sweep of country is a Grand Canyon; it cannot be the reality is that man has marred too much of it. We can try to reserve much of the Grand Canyon for the future; we can try to prevent the degrading of the rest.

THE PIECES OF A COMPLETE PARK

1. Starting at the upstream end of the Canyon, the first new segment of the Park would be the lower Paria canyon, which joins the mainstream from the northwest just below Lee's Ferry. The Paria is not well-known, but a recent Bureau of Land Management expedition indicated its potential for hiking, and its value for archeology and geology, as well as its scenic quality.

2. Marble Gorge, running from Lee's Ferry to Nankowep Creek. Marble Gorge is also accessible by trail and both east and west rims have a number of viewpoints. Driving out to these viewpoints from the east is a bifocal experience. For most of the trip the eye is held by the Kaibab monocline across the river, where the rocks are clearly warped up, and eroded into the Cockscomb. Then abruptly, the focus shifts as what had appeared to be a line across the plain shows as the opposite rim of Marble Gorge, is then quickly presented in its full width and depth. This approach, with cliffs as setting for the suddenly-appearing Canyon, is typical of Marble Gorge region, for the plain through which the Canyon is cut is bounded on the west by the Kaibab, on the north by the Vermilion, and on the east by the Echo Cliffs. The Echo and Vermilion Cliffs, in addition to forming outer walls for the Canyon, are outcrops of the remarkably colored Triassic formations. The Marble Gorge addition to the National Park would include gorge, plain, and cliffs, except those on the east which belong to the Navajos who have already established Grand Canyon and Little Colorado Tribal Parks on their side of the Colorado.

3. The third new section for the Park would take in a strip of the high forested Kaibab plateau, now open to lumbering. Although geologic history has made the whole Kaibab plateau an integral part of the Grand Canyon, we have suggested adding only the south Kaibab section because of the extensive deer hunting use made of the area during the fall. The south Kaibab is a land of ponds, meadows, aspen and conifer stands which deserves to be saved and enjoyed not only for itself, but as one of the more contrasting entries to the Grand Canyon.

4. The west side of the Kaibab drops off in steps into the complex system of the Kanab side canyons. Kanab Creek starts up near Bryce Canyon in Utah, but the bound-

aries we propose would include only the part in which a wash has deepened into a canyon. The boundary is intended to gather in the arms of the Kanab: Hacks, Granma, Snake, Sowats, Jumpup.

5. Slightly downstream from and opposite to Kanab is Havasu Canyon, which at its upper end is called Cataract Canyon. The lower end of Havasu, with its perennial stream, waterfalls, and Havasupai Indian village is already well-known. The proposed addition would take in the rest of this canyon so that this long cross-section of the Grand Canyon's Paleozoic rocks would be fully within the National Park. Only if side canyons in nearly their entirety are included will it be possible to comprehend the whole sweep of the Grand Canyon.

6. When the Grand Canyon National Monument was proclaimed in 1932, it included the northern end of the Toroweap Valley. The Valley is bounded on the east by a face of the Kanab Plateau and on the west by the Pine Mountains, remnants of volcanic activity. It is a long hall-like entry to a view 3,000 feet as straight down as it is possible to get in the Canyon.

7. The western end of the Grand Canyon is now without any National Park protection, yet it contains the Lower Granite Gorge, a part of the inner gorge unlike the Upper Granite Gorge within the National Park. The prevailing hues and structures of the rock are quite different. There are a number of individual features, such as Travertine Falls and Grotto, the Red Slide, and the lower Sonoran vegetation, which further distinguish it. Here, too, are a number of side canyons which are not duplicated elsewhere. On the north side, rising more than a mile, is the deeply incised Shivwits Plateau, almost unvisited, though it is the area on the North Rim closest to an Interstate Highway. On the south side of the Colorado River, just before the Canyon ends at the Grand Wash Cliffs, is Rampart Cave, containing well-preserved deposits of Late Pleistocene fossils and dung, notably of a ground sloth.

The individual parts of the proposal have been described here as part of the reason for completion of the National Park. Of course, the geographic unity and aesthetic quality of the Grand Canyon constitute the primary justification for completion of the National Park.

S. 2979—INTRODUCTION OF A BILL PROVIDING A TAX CREDIT FOR THE EXPENSES OF HIGHER EDUCATION

Mr. DOMINICK. Mr. President, for myself, Mr. RIBICOFF, Mr. ALLOTT, Mr. BELLMON, Mr. BIBLE, Mr. BAKER, Mr. BOGGS, Mr. CANNON, Mr. COTTON, Mr. CURTIS, Mr. DODD, Mr. DOLE, Mr. EASTLAND, Mr. FANNIN, Mr. FONG, Mr. GRIFFIN, Mr. HANSEN, Mr. HARRIS, Mr. HART, Mr. HRUSKA, Mr. JORDAN of Idaho, Mr. MCGOVERN, Mr. MUNDT, Mr. MURPHY, Mr. NELSON, Mr. PACKWOOD, Mr. PERCY, Mr. PROUTY, Mr. PROXMIER, Mr. RANDOLPH, Mr. SPARKMAN, Mr. SMITH of Illinois, Mr. STEVENS, Mr. THURMOND, Mr. TOWER, and Mr. YOUNG of North Dakota, I introduce, for appropriate reference, a bill to amend the Internal Revenue Code of 1954 to allow a credit against income tax to individuals for certain expenses incurred in providing higher education.

This is essentially the same bill which was passed by the Senate as an amendment to H.R. 6950 during the 90th Congress. Unfortunately, the amendment did

not survive the subsequent conference with the House and therefore did not become law.

Mr. President, the cost of obtaining an education beyond high school has been rising steadily as shown by the table published by the Department of Health,

Education, and Welfare on October 28, 1968. I ask unanimous consent that the table be printed at this point in the RECORD.

There being no objection, the table was ordered to be printed in the RECORD, as follows:

	Tuition and fees		Total cost (Including room and board)		Consumer prices	Personal income per capita ¹
	Public	Private	Public	Private		
1958-59.....	\$224	\$867	\$932	\$1,687	-----	\$2,074
1968-69.....	299	1,380	1,092	2,326	-----	3,409
Increase project (percent).....	+34	+59	+\$17	+38	+17	+64
1978-79 (1967-68).....	\$375	\$1,906	\$1,264	\$2,988	-----	
Increase (percent).....	+25	+38	+16	+29	-----	

¹ Calendar years 1958 and 1968.

Source: Department of Health, Education and Welfare, The Chronicle of Higher Education, Oct. 28, 1968.

Mr. DOMINICK. While the cost of higher education has risen steadily, the number of students enrolled in institutions of higher education also has grown constantly, as shown by the fact that in 1940 only 15 percent of our 18-to-21-year-old population was enrolled in college. Today, the percentage has grown to 48 percent of that age group, and will continue still higher, because the stress on education beyond high school makes it imperative for anyone who wants a job with a future to continue his education. Almost 7 million college students now are working toward degrees, and the average annual cost is well over \$1,500 per student. To help ease that financial burden, our bill is heavily slanted in favor of low-tuition public institutions, but would also benefit students who choose vocational or junior college training as well.

Although student aid amounted to \$1.8 billion in the Federal budget for fiscal 1969, most of those funds were earmarked for graduate fellowships and training in a few specified professions, NDEA loans, veterans' benefits, and work-study programs. Most students who required financial assistance had to rely on work-study programs and scholarships from private or State sources. But before such financial assistance is available, at most institutions of higher education a condition is imposed requiring that the family of the student must contribute toward the student's expenses in accordance with a chart prepared by the college scholarship service. That chart shows the amount the family is expected to contribute by family income level. I ask unanimous consent that this chart, which was published in U.S. News & World Report some months back, be printed at this point in the RECORD.

There being no objection, the chart was ordered to be printed in the RECORD, as follows:

Income before taxes	Number of other dependent children in family—				
	None	1	2	3	4
\$4,000.....	\$290	\$100			
\$6,000.....	790	550	\$350	\$220	\$130
\$8,000.....	1,290	980	740	570	440
\$10,000.....	1,860	1,490	1,150	920	750
\$12,000.....	2,450	2,050	1,650	1,370	1,130
\$14,000.....	3,200	2,680	2,220	1,890	1,590
\$16,000.....	3,970	3,360	2,850	2,470	2,130

Mr. DOMINICK. The chart shows that the family which has a gross income of \$8,000 and a net income after taxes of \$7,114 would be expected to contribute \$1,290 toward their college student's expenses before any scholarship funds might be available. You can well imagine what a burden this places on this family. The impact on family finances has become harder and harder.

It becomes even more clear when you consider that at a cost of between \$10,000 and \$20,000 for 4 years of undergraduate education for each child, the cost of higher education for their children may well cost the family more than the family home. It certainly is a greater burden than mortgage interest, State and local taxes, medical expenses or casualty losses, and yet we give tax relief in the form of deductions for these expenses. It seems to me only right that we recognize for tax purposes the cost of higher education for young Americans.

Our bill would do just that. Under the formula set forth in the bill, the full credit is allowed on the first \$200 of expenses for tuition, fees and books; 25-percent credit will be allowed for the next \$300 of expenses, and a credit of 5 percent would apply to the next \$1,000 of such expenses. The total credit allowable on \$1,500 of expenses would be \$325.

The formula also provides that the allowable tax credit shall be reduced by 1 percent of the adjusted gross income of the taxpayer in excess of \$15,000. The effect of this limitation is to place the major emphasis of the bill on assisting the lower and lower middle income taxpayers who are bearing the burden of higher education. Under this formula, for example, a Senator who pays more than \$1,500 for tuition, fees, and books for one of his children at college would be entitled to only a \$50 credit on his income tax. A taxpayer whose adjusted gross income is \$47,500 or higher would not be eligible for any tax credit.

There is widespread support for the tax credit approach in helping to meet the growing costs of higher education. For example: A questionnaire was sent to the presidents and trustees of all public and private institutions of higher education by the Citizens National Committee on Higher Education, and produced a favorable reply from 90 percent of those

responding. Only the presidents—not the trustees—showed a slight majority were opposed to the tax credit approach.

A national survey conducted by Opinion Research Corp., of Princeton, N.J., for CBS-TV in 1966, disclosed that 70 percent of the viewing public supported tax credits for education, while only 13 percent opposed this approach. It is interesting to note that in that survey the highest level of support was found among persons in the \$5,000 to \$6,999 income bracket; 88 percent of this group favored educational tax credits. Among young people in the 18- to 29-year age group, 80 percent were in favor of this proposal.

In June of last year, a nationwide survey by Better Homes and Gardens magazine reported that almost three-fourths of the 300,000 consumers who responded think a family's college expenses are so basic that they should be deductible on individual Federal income tax returns. Other polls have shown the same kind of results: 70 to 80 percent of the public supports the concept of tax credits for education expenses.

College and university administrators, faculty, and trustees have expressed enthusiastic support for the tax credit approach to extend the benefits of higher education to the many who cannot now meet the rapidly increasing costs. The tax credit concept has received the endorsement of a variety of educational organizations, including the National Education Association, the Colorado Education Association, the National Association of University Administrators, the Association of American Colleges, the United Business Schools Association, and the Citizens National Committee for Higher Education.

I believe we should again act favorably on this legislation to help our hard-pressed lower and middle income wage earners meet the rising costs of educating their children to meet the challenges of the future.

The PRESIDING OFFICER. The bill will be received and appropriately referred.

The bill (S. 2979), to amend the Internal Revenue Code of 1954 to allow a credit against income tax to individuals for certain expenses incurred in providing higher education, introduced by Mr. DOMINICK (for himself and other Senators), was received, and read twice by its title, and referred to the Committee on Finance.

Mr. PERCY. Mr. President, I am pleased to participate in sponsoring legislation introduced today providing a tax credit for students and families meeting the expenses of a higher education. This legislation is similar to the amendment to the investment tax credit I cosponsored last year. This amendment passed the Senate but was subsequently deleted by a conference committee with the House.

We in the United States have been placing more and more emphasis on the importance of education as a tool for both personal and social betterment. This has resulted from our increasing realization that the solution to our complex social problems, the very growth

and development of our country, and our continued prominence in world affairs is dependent upon an educated citizenry.

In response to this accent on education, our youth have come to realize that their own success and advancement depends largely upon their level of knowledge and training. Consequently, we now have nearly 7 million students enrolled in our Nation's colleges and universities. By 1975 it is estimated that this number will reach 9 million.

To accommodate these students, colleges and universities will be spending approximately \$22.5 billion for the expansion of facilities, equipment, and teachers. This will be double the amount expended only 3 years ago.

Part of the revenue required for this expansion will be obtained through tuition increases—an all too familiar fact of life for anyone paying for a college education.

This year, for example, the typical student attending a public- or State-supported school will spend approximately \$300 for tuition or \$1,000 for just tuition, room, and board. His counterpart at a private school will pay even more—nearly \$1,300 for tuition to \$2,200 for tuition, room, and board. Only 3 years ago the average tuition at these institutions was \$200 and \$800, respectively.

These tuition costs when added to board, books, and supplemental expenditures often mean that the cost of a college education over a 4-year period exceeds \$10,000 per student. It is no wonder that many families, especially those with more than one child, find the cost of education either prohibitive or an onerous burden.

There is, of course, some relief available in the form of scholarships and loans. These generally go where there is the most demonstrable need, as they should. Thus there are financial resources available for the most needy and deserving students.

For the student from a middle-income family, however, there is often no financial assistance available. Thus so many families who work hard to pay the mortgage, meet tax obligations, and educate their children are often burdened with yet another payment they must sacrifice to meet.

These people require and deserve some help because their investment in their children's education is also an investment in our society. And it is these people who will derive the most benefit from the tax credit legislation introduced today.

Under the provisions of this bill, every person paying for vocational, technical, or college education beyond the 12th grade will be eligible for a tax credit of up to \$325 for each student he is assisting. The actual amount of the credit will be determined on the basis of a formula providing for 100-percent credit on the \$200 of educational expense, 25 percent of the next \$300 and 5 percent of the next \$1,000.

This credit will not be just an expense tax deduction, but an actual subtraction from the amount of taxes a person would ordinarily have to pay. While

it will be provided uniformly without regard to the taxpayer's tax bracket, it will be progressively reduced as the taxpayer's adjusted gross income exceeds \$15,000.

The effect of the tax credit can best be illustrated by taking two examples from a State, such as Illinois. In Illinois, a family sending a student to a private school, such as Northwestern University, would be confronted with a tuition bill alone of \$1,860. Under the formula, the family would be eligible for the full \$235 tax credit. In essence, this credit would reduce their tuition payments by 17.4 percent.

This same family sending a child to a State school, such as the University of Illinois, would have to pay \$270 for tuition. Under the formula, the family would be eligible for a \$217.50 tax credit, which is 80.6 percent of the tuition cost.

From these examples, it is evident that the percentage of relief from a tax credit is greater for the payment of tuition at publicly supported schools, whereas the dollar amount is greater for private, generally more expensive schools.

It has been estimated that 90 percent of the benefits derived from a tax credit would be afforded to those families with incomes of \$20,000 or under. Over two-thirds of these benefits would accrue to families with incomes \$10,000 or less. Thus, the legislation accomplishes its goal: Providing financial relief to our middle-income families who are trying to educate their children.

Mr. President, this is an important piece of legislation, which meets a definite need in our society. I would hope, therefore, that the Senate would once again take favorable action on it.

S. 2980—INTRODUCTION OF A DISTRICT OF COLUMBIA ANTICRIME BILL

Mr. TYDINGS. Mr. President, I introduce by request, today, a bill containing three anticrime measures for the National Capital.

One measure will outlaw shoplifting in the District of Columbia. This legislation has been proposed by the Metropolitan Washington Board of Trade.

Shoplifting is a costly crime to law abiding citizens of the Washington metropolitan area. According to the testimony before the District Committee earlier this year of Leonard Kolodny, manager of the Retail Bureau of the Board of Trade, shoplifting and internal theft cost area merchants between \$80 and \$150 million a year. His testimony revealed that one merchant had apprehended 10,915 shoplifters during the past 5 years. The cost of this crime is, of course, borne by the law-abiding consumers since merchants raise prices as much as 10 percent to compensate for their losses.

Currently, in the District of Columbia Code, there is no law specifically prohibiting shoplifting. Instead, shoplifting cases now fall under laws for petty and grand larceny. As a result, many shoplifting cases that should be prosecuted are not. This new law will clearly define what constitutes a shoplifting offense

and permit merchants to detain a shoplifting suspect until police arrive. Most States, including Maryland, have shoplifting legislation.

Another measure, requested by the District of Columbia government, will require that drivers who appear to be driving under the influence of intoxicants submit to either a breathalyzer, urine, or blood test or face automatic license suspension. This legislation will require that any medical test be administered by a licensed medical practitioner.

Drinking and driving is one of the major traffic problems in the National Capital. This legislation will aid considerably in the enforcement of laws prohibiting driving while under the influence of intoxicants.

This legislation will bring the National Capital into line with 44 States, including Maryland, which already have such legislation.

The third measure, requested by the Board of Trade, will aid in the prosecution of credit card abusers in Washington. Present law, here too, results in far too few prosecutions because prosecution is, at best, difficult. This legislation will define credit card abuse and establish penalties for that offense.

The PRESIDING OFFICER. The bill will be received and appropriately referred.

The bill (S. 2980), to provide that any person operating a motor vehicle within the District of Columbia shall be deemed to have given his consent to a chemical test of his blood, breath, or urine, for the purpose of determining the alcoholic content of his blood, to prohibit shoplifting in the District of Columbia, to prohibit the theft, unauthorized use, and abuse of credit cards in the District of Columbia, and for other purposes, introduced by Mr. TYDINGS (by request), was received, read twice by its title, and referred to the Committee on the District of Columbia.

ADDITIONAL COSPONSORS OF BILLS AND JOINT RESOLUTIONS

S. 2579

Mr. GRIFFIN. Mr. President, at the request of the Senator from Pennsylvania (Mr. SCOTT), I ask unanimous consent that, at the next printing, the name of the Senator from Alaska (Mr. STEVENS) be added as a cosponsor of S. 2579, to authorize the Commissioner of Education to make vocational education opportunity grants.

The PRESIDING OFFICER. Without objection, it is so ordered.

S. 2790

Mr. GRIFFIN. Mr. President, at the request of the Senator from Pennsylvania (Mr. SCOTT), I ask unanimous consent that, at the next printing, the name of the Senator from Texas (Mr. YARBOROUGH) be added as a cosponsor of S. 2790, to incorporate the Catholic War Veterans of the United States of America.

The PRESIDING OFFICER. Without objection, it is so ordered.

S. 2791

Mr. GRIFFIN. Mr. President, at the request of the Senator from Pennsylvania (Mr. SCOTT), I ask unanimous consent that, at the next printing, the name of the Senator from Texas (Mr. YARBOROUGH) be added as a cosponsor of S. 2791, to incorporate the Jewish War Veterans of the United States of America.

The PRESIDING OFFICER. Without objection, it is so ordered.

SENATE JOINT RESOLUTION 150

Mr. GRIFFIN. Mr. President, at the request of the Senator from Pennsylvania (Mr. SCOTT), I ask unanimous consent that, at the next printing, the name of the Senator from Texas (Mr. YARBOROUGH) be added as a cosponsor of Senate Joint Resolution 150, to authorize the President to designate the period beginning October 12, 1969, and ending October 18, 1969, as "National Industrial Hygiene Week."

The PRESIDING OFFICER. Without objection, it is so ordered.

SENATE JOINT RESOLUTION 155

Mr. BYRD of West Virginia. Mr. President, at the request of the Senator from Alaska (Mr. GRAVEL), I ask unanimous consent that, at the next printing, the names of the Senator from Indiana (Mr. BAYH), the Senator from Massachusetts (Mr. BROOKE), the Senator from Idaho (Mr. CHURCH), the Senator from California (Mr. CRANSTON), the Senator from Missouri (Mr. EAGLETON), the Senator from Arkansas (Mr. FULBRIGHT), the Senator from Michigan (Mr. HART), the Senator from Indiana (Mr. HARTKE), the Senator from South Carolina (Mr. HOLLINGS), the Senator from Hawaii (Mr. INOUE), the Senator from Massachusetts (Mr. KENNEDY), the Senator from Washington (Mr. MAGNUSON), the Senator from Minnesota (Mr. MCCARTHY), the Senator from South Dakota (Mr. MCGOVERN), the Senator from Minnesota (Mr. MONDALE), the Senator from Maine (Mr. MUSKIE), the Senator from Wisconsin (Mr. NELSON), the Senator from Connecticut (Mr. RIBICOFF), the Senator from Ohio (Mr. SAXBE), the Senator from New Jersey (Mr. WILLIAMS), the Senator from Texas (Mr. YARBOROUGH), and the Senator from Ohio (Mr. YOUNG) be added as cosponsors of Senate Joint Resolution 155, to provide for a study and evaluation of international and other foreign policy aspects of underground weapons testing.

The PRESIDING OFFICER. Without objection, it is so ordered.

ADDITIONAL COSPONSORS OF CONCURRENT RESOLUTION

SENATE CONCURRENT RESOLUTION 37

Mr. GRIFFIN. Mr. President, at the request of the Senator from Pennsylvania (Mr. SCOTT), I ask unanimous consent that, at the next printing, the name of the Senator from Delaware (Mr. BOGGS) be added as a cosponsor of Senate Concurrent Resolution 37, relating to the treatment of prisoners of war.

The PRESIDING OFFICER. Without objection, it is so ordered.

SENATE RESOLUTION 267—SUBMISSION OF A RESOLUTION TO PRINT "THE COST OF CLEAN AIR" AS A SENATE DOCUMENT

Mr. RANDOLPH submitted the following resolution (S. Res. 267); which was referred to the Committee on Rules and Administration:

SENATE RESOLUTION 267

Resolved, That there be printed as a Senate document the first report of the Secretary of Health, Education, and Welfare, entitled "The Cost of Clean Air," submitted to the Congress in accordance with section 305 (a), Public Law 90-148, the Air Quality Act of 1967, and that there be printed three thousand additional copies of such document for the use of the Committee on Public Works.

FEDERAL WATER POLLUTION CONTROL ACT—AMENDMENT

AMENDMENT NO. 217

Mr. STEVENS. Mr. President, on behalf of myself and the Senator from Massachusetts (Mr. KENNEDY), I resubmit an amendment to S. 7. I ask that it be printed and lie on the table so that it can be called up at an appropriate time.

This amendment takes into account the very difficult conditions in which the native people of the rural areas of my State live. What we are seeking is an amendment to S. 7 to deal with the pollution problems of rural Alaska.

In this area, the Alaskan native is locked into a cycle of poverty that is more severe than anywhere else in our Nation. Their living conditions give rise to statistics which I have brought forth on the floor before, but which I should like to repeat.

For example, the life span of the Alaskan native is 34 years. The death rate from influenza and pneumonia in the Alaskan native section of our State is 10 times that of the nonnative people. The infant mortality rate is such that their death rate is 5 times that of all other Americans, on an average.

Mr. President, I could cite a great many statistics at this time. One of the statistics that startles me is that only 8 percent of the Alaskan native people have either running water or sewerage facilities in their homes. We are trying to deal with a village condition in which homes are obsolete and substandard, and we cannot afford to put either running water or sewerage facilities in them. What we want to do is to provide sanitation facilities to prevent the pollution of our rivers and streams by creating a safe water facility in each village comparable to the central water facility that is found in many of the trailer courts in States such as Florida and California.

We want to try to create a place where every native family can have a shower, have safe water, have toilet facilities, and have a small room for a health aide or a visiting doctor. This would mean that they would at least be able to participate in the advantages of the 19th century so far as the rest of the country is concerned.

So, Mr. President, I ask that the amendment be received and be printed and lie on the table.

The PRESIDING OFFICER. The amendment will be received, printed, and will lie on the table.

The amendment (No. 217) was received, ordered to lie on the table and to be printed.

Mr. STEVENS. Mr. President, I ask unanimous consent to have three telegrams printed at this point in the RECORD. The first is from the grand president of the Alaskan Native Brotherhood, Dr. Walter A. Soboleff; the second is from the commissioner of the Alaska Department of Health and Welfare; and the third is from the director of the Alaska State Housing Authority.

There being no objection, the telegrams were ordered to be printed in the RECORD, as follows:

JUNEAU, ALASKA,
September 27, 1969.

Senator TED STEVENS,
Washington, D.C.:

In the interest of continuing progress as meets critical needs nationally we urge congressional support re Alaska Safe Water Facility Act for rural native villages as an amendment to S. 7 Federal Water Pollution Control Act.

Dr. WALTER A. SOBOLEFF.

JUNEAU, ALASKA,
September 27, 1969.

Senator TED STEVENS,
Old Senate Office Building,
Washington, D.C.:

Urge favorable consideration of Alaska Safe Water Facilities Act. Improved sanitation and in turn reduction in water borne disease in native villages of Alaska dependent upon provision of safe water sources and accompanying washing facilities as authorized in your bill. Would appreciate your keeping me advised of progress of this legislation.

J. W. BETT.

ANCHORAGE, ALASKA,
September 25, 1969.

Hon. TED STEVENS,
U.S. Senate,
Washington, D.C.:

As has activities this year administering remote housing program in ten villages reinforces our conviction Alaska State water facility act equal in importance to health of villagers with decent safe and sanitary housing. We trust you can convey to Congress the interdependence of both programs in eliminating blight on village health. We give our strongest endorsement and wish you success in this important undertaking.

JAY C. MUELLER.

FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969—AMENDMENTS

AMENDMENT NO. 218

Mr. COOPER proposed an amendment to the bill (S. 2917) to improve the health and safety conditions of persons working in the coal mining industry of the United States, which was ordered to be printed.

AMENDMENT NO. 219

Mr. PROUTY (on behalf of himself, Senator BELLMON and Senator DOMINICK) submitted an amendment, intended to be proposed by him to S. 2917, supra, which was ordered to lie on the table and to be printed.

FEDERAL WATER POLLUTION CONTROL ACT—AMENDMENT

AMENDMENT NO. 220

Mr. JAVITS submitted an amendment intended to be proposed by him to the bill (S. 7) to amend the Federal Water Pollution Control Act, as amended, and for other purposes, which was ordered to lie on the table and to be printed.

(The remarks of Mr. JAVITS when he submitted the amendment appear later in the RECORD under the appropriate heading.)

H.R. 10595—PROVIDING FOR A GREAT PLAINS CONSERVATION PROGRAM—SUBSTITUTION OF A CONFERE

Mr. ELLENDER. Mr. President, I ask unanimous consent that the name of the Senator from Oklahoma (Mr. BELLMON) be substituted for that of the Senator from Kentucky (Mr. COOK), as a conferee on H.R. 10595, to amend the act of August 7, 1956 (70 Stat. 1115), as amended, providing for a Great Plains conservation program.

The PRESIDING OFFICER. Without objection, it is so ordered.

ENROLLED BILL SIGNED

The ACTING PRESIDENT pro tempore announced that on today, October 1, 1969, he signed the enrolled bill (H.R. 10420) to permit certain real property in the State of Maryland to be used for highway purposes, which had previously been signed by the Speaker of the House of Representatives.

ENROLLED BILL PRESENTED

The Secretary of the Senate reported that on today, October 1, 1969, he presented to the President of the United States the enrolled bill (S. 713) to designate the Desolation Wilderness, Eldorado National Forest, in the State of California.

NOTICE OF HEARINGS ON MISCELLANEOUS TREATIES

Mr. FULBRIGHT. Mr. President, for the information of the Senate and other interested parties, I wish to announce that the Committee on Foreign Relations will take testimony in public session on October 7 on the following pending treaties:

The Convention Establishing the World Intellectual Property Organization and the Paris Convention for the Protection of Industrial Property;

The Convention on Conduct of Fishing Operations in the North Atlantic; and

The Vienna Convention on Consular Relations and Optional Protocol Relating the Compulsory Settlement of Disputes.

All of these conventions were submitted by the present administration and have been pending for about 5 months or longer.

MANSFIELD'S REPORT REVEALS PERFORMANCE GAP IN ASIAN POLICY

Mr. CHURCH. Mr. President, I wish to compliment the majority leader, the distinguished Senator from Montana (Mr. MANSFIELD), on his fine report entitled "Perspective on Asia: The New U.S. Doctrine and Southeast Asia."

As the report makes clear, Senator MANSFIELD's concern stems not from the inadequacies of the President's newly stated policies but from failures in their execution. The President has promised a reduction of U.S. pressure in Asia, yet Senator MANSFIELD could find no visible sign of followthrough on the new doctrine. The weightiness of U.S. presence continues:

The concepts, practices, and programs by which U.S. missions in Asia have operated for many years remain the same.

The report demonstrates that the Committee on Foreign Relations must maintain close surveillance over the execution of Asian policy, to determine whether the rhetoric of change will be given operational meaning. As Senator MANSFIELD has reminded us anew, it is not what a President says, but what he does, that matters.

TREATMENT OF AMERICAN PRISONERS OF WAR

Mr. GRIFFIN. Mr. President, Americans are not the only ones outraged by North Vietnam's treatment of American prisoners.

Editorials in major papers around the world also have expressed indignation. It is becoming more and more obvious to civilized nations that it is the Communists who have blockaded the road to peace; it is Hanoi that has led the treatment of prisoners and civilian population back to the dark ages of starvation and torture.

I should like to focus attention upon four foreign newspaper editorials which give hope that world opinion is swinging—as well it should—to the side of the United States.

The editorial comment quoted below was developed following the September 2 press conference of the returned POW's.

From Le Figaro, of Paris:

This state of affairs is completely abnormal . . . It is inconceivable that a government which claims to fight for justice and liberty would violate rules that are designed to insure that a certain degree of humanity is respected for POW's.

From liberal Het Laatste Nieuws, of Brussels:

The North Vietnamese regime is cynically ignoring all purely humane provisions of the Geneva Convention . . . North Vietnam has always been deliberately blind and deaf to this unequivocal language. To the evil which armed violence represents, it is thus adding an equally great evil, that of deliberate arbitrariness. Such an attitude deserves to be condemned by everybody.

From the London Sunday Express:

In Britain we have had protest meetings about the suffering of the people of North Vietnam. Left-wing MPs have demonstrated

their solidarity with the Communist government. No one doubts the protesters' sincerity or depth of feeling. But why do they not extend their sympathy to other innocent people: the families of the missing servicemen who must live a nightmare of uncertainty? Why do not the left-wingers use their influence to insist that their friends in Hanoi display simple humanity and issue a list of prisoners?

From Aftenposten, of Oslo:

Regardless of how one sees the unhappy war in Vietnam, the majority—we believe—of the Norwegian population is so humanely inclined that they denounce both the mistreatment of prisoners and the spiritual torture which is suffered by the innocent—the prisoners' relatives—by holding them in long uncertainty about the fate of their nearest ones.

THE SENDING OF U.S. AIRCRAFT TO SPAIN

Mr. FULBRIGHT, Mr. President, the Committee on Foreign Relations has given considerable study this year to the issues involved in our military bases in Spain. As a result of the committee's efforts, the agreement reached with Spain for extension of our base rights was far more reasonable than that originally sought by negotiators for both Governments. But I still have serious reservations about the wisdom of any agreement to provide military aid to the Franco government, and the Foreign Relations Committee has not yet passed on the administration's request for \$50 million in military aid as payment to Spain. It is my understanding that efforts will be made to reach agreement with Spain on educational and cultural exchanges and other nonmilitary matters to chart a relationship with her which would be more in keeping with our basic values than the present military-oriented arrangement. I hope that the administration attaches great importance to this project.

In view of the concern expressed by members of the committee over the U.S. military presence in Spain, I was surprised to see an article published in the Baltimore Sun of August 12 which reported that the Department of Defense planned to station 72 new F-4 Phantom fighters at the Torrejon Airbase, near Madrid, to replace 54 F-100 aircraft. It seemed strange that a newer, faster, and more effective fighter was being sent in greater numbers than the obsolete plane it was to replace. So I wrote to Secretary Laird and asked a number of questions about the matter. The reply received from Mr. G. Warren Nutter, Assistant Secretary of Defense for International Security Affairs, reveals a great deal about the lack of effective direction and control by the Department of State over military decisions having significant bearing on delicate foreign policy issues. I ask unanimous consent that the article and the exchange of correspondence be printed in the RECORD following my remarks.

According to the letter, it was decided "late last year," apparently while the base negotiations were underway, to replace the F-100's with F-4's and at the same time increase the number of aircraft from 18 to 24 for each of the three squadrons involved. The fact that there

was to be an increase of 18 in the total number of aircraft stationed at Torrejon, with all the additional supporting personnel that this entailed was not brought to the attention of the Department of State—or the International Security Affairs section of the Defense Department—until at least 8 months later, 2 months after the base agreement had been signed, and over a month after the U.S. mission in Madrid passed the word, apparently, to the Spanish military. Mr. Nutter wrote:

When ISA did learn of the proposed increase in early August 1969, we of course promptly informed the Department of State.

If I read between the lines correctly, Mr. Nutter read about it in the newspaper, as I did. Perhaps it will be of some comfort to State Department officials to learn that they were not the only ones in the dark about the Air Force plans, the Defense Department's foreign policy branch was not let in on the secret either.

Seemingly, there were similar problems within the Spanish Government. The letter relates that the U.S. military mission in Madrid told Spanish military officials on June 30 of the "Air Force plans." But either they were not told of the increase in planes and personnel, or the Spanish military men did not pass the information on to higher authority. "In August," the letter states, "the Spanish Government voiced its concern over both the proposed increase in aircraft and the increase in personnel." As a result, the administration has decided to send only 54 F-4's to Torrejon—a 1-for-1 replacement. But, the Defense Department says, this will still result in a "significant upgrading of our capability in the area." And it will mean the stationing of 242 more U.S. servicemen in Spain and a \$500,000 blow to our balance-of-payments position.

Mr. President, this is a small matter as foreign policy problems go. But the fumbling and bumbling within the Defense Department, between State and Defense, and between the United States and the Spanish Government depicted here, in the light of the controversy over the Spanish bases issue, illustrates a serious defect in our foreign policy machinery. Foreign policy has, in all too many instances, become the captive creature of decisions made by planners in the Defense Department. Until recent years I believed that the State Department was the agency responsible for the conduct of our foreign affairs. But responsibility must correspond to power and authority. After repeated incidents, large and small, of the military directing our foreign policy—an inevitable product of having bases and military missions scattered around the globe—I am no longer sure that the State Department should be held fully accountable.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

[From the Baltimore Sun, Aug. 12, 1969]
U.S. MAY STATION F-4'S IN SPAIN—ADDED USE OF BASE PLANNED DESPITE RECENT PACT

WASHINGTON, August 11.—The Nixon administration plans to upgrade United States military capability in Spain by dispatching

72 new F-4 Phantom fighters to the Air Force base at Torrejon early next year, it was learned today.

Under the plan, likely to bring new criticism from some congressional leaders who want the United States out of Spain entirely, the Phantoms will be substituted for 54 F-100 aircraft.

The F-4's are the major fighters used in Vietnam. The F-100 dates back to 1954.

Pentagon officials say the Spanish government was informed of the proposed move over the weekend. Involved is the 16th Air Force's 401st Tactical Fighter Wing at Torrejon, near Madrid.

Only six weeks ago the U.S. and Spain announced a joint agreement limiting American use of the bases to September 26, 1970, with an additional 12 months provided for withdrawal of units.

The Spanish have issued public statements proclaiming their desire and intent to have full control over the bases after that.

Senator J. W. Fulbright (D., Ark.), chairman of the Foreign Relations Committee, has questioned whether the U.S. needs any bases in Spain. He accepted the recent limited extension of the U.S.-Spanish agreement only as a step toward an eventual U.S. pullout.

FOR RECEIVING POINT

Defense officials make it quite clear in interviews that the administration has future plans for the Spanish bases and hopes to negotiate another extension next year.

The Pentagon proposes, for example, to use Torrejon as a receiving point for the jumbo C-5A transport planes once they begin making military airlift command flights out of the United States.

Defense officials say the Spanish bases are of great military importance to the United States but acknowledge that "we've never said they are absolutely vital to our survival.

"A simple glance at the southern flank of NATO and you can see that the United States must have the capability of reinforcing there in any war," said an official, pointing to a map of the Mediterranean.

Furthermore, with France leaving the North Atlantic Treaty Organization and forcing the United States to give up its bases there, more American air traffic is being routed through Spain.

AUGUST 28, 1969.

HON. MELVIN R. LAIRD,
Secretary of Defense,
Washington, D.C.

DEAR MR. SECRETARY: The enclosed news item reports that the Department of Defense plans to replace 54 F-100 aircraft at the Torrejon Air Base in Spain with 72 F-4 aircraft.

As you know, this Committee has been quite interested in matters relating to U.S. bases in Spain. In view of this, I would appreciate your providing the Committee with the following information:

1. What is the mission of the F-100 squadrons that are currently stationed at Torrejon? How many F-100 pilots are assigned to Torrejon? What is the average length of time?

2. What will be the mission of the F-4 squadrons to be stationed at Torrejon? How many F-4 pilots will be assigned to Torrejon?

3. Does the mission of the tactical fighter aircraft at Torrejon require that the number of F-4s (72) be increased from the number of F-100s (54) that are presently assigned?

4. How was the Spanish Government informed of the change in aircraft? What explanation was given for the increase in the number of aircraft?

5. What was the reaction of the Spanish Government to the change in aircraft and the increase in number to be stationed at Torrejon? What was the reaction of the Spanish press in Madrid to announcement of the change and increase in aircraft?

6. What will happen to the F-100 aircraft that are now stationed at Torrejon after the changeover to F-4s?

7. Was the Department of State consulted and its approval obtained prior to the decision to send the additional aircraft?

8. Do you think that the Spanish Government will attach, or that it should attach, any political significance to the move?

9. Will this result in the stationing of additional U.S. military personnel in Spain? If so, how many and what is the estimated impact of this on our balance of payments?

Sincerely yours,

J. W. FULBRIGHT,
Chairman.

ASSISTANT SECRETARY OF DEFENSE,
Washington, D.C., September 20, 1969.

Hon. J. W. FULBRIGHT,
Chairman, Committee on Foreign Relations,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Secretary Laird has asked that I reply to your August 28 letter concerning plans to replace aircraft stationed in Spain.

The 401st Tactical Fighter Wing is home-based at Torrejon and is presently equipped with 54 F-100 aircraft. The wing's mission is to provide aircraft in support of operational missions at forward bases in the Mediterranean area essential to the defensive strength which deters attack on Western Europe. Elements of the 401st deploy from Torrejon to these forward bases at regular intervals. The conversion from F-100 aircraft to F-4 aircraft will in no way affect the nature of the mission.

I wish to point out that USAF tactical fighter wings normally have 72 aircraft. Since the mid-1950's, CONUS-based wings have been organized into four squadrons of 18 aircraft each, while overseas-based units have three squadrons of 24 aircraft each. (Most squadrons in the Far East today are equipped with 18 aircraft each—either because they were deployed with that equipment from CONUS, or because of aircraft attrition in that area). When the 401st was sent to Spain in 1966, its three squadrons, coming from CONUS, were organized on CONUS equipment levels, i.e., 18 aircraft per squadron. Due to the shortage of F-100's generated by attrition in Southeast Asia, the six aircraft deficiency in each of the three squadrons was never made up.

When it was decided late last year to convert the wing to F-4's, the decision was concurrently made to increase the number of aircraft in each squadron from 18 to 24 in order to bring the 401st into line with all other tactical fighter wings based in Europe.

Both the Department of State and the Department of Defense had been aware of Air Force plans to modernize the 401st TFW to perform its current mission. The technical details of such conversions were not normally and were not in this case submitted to my office or to the Department of State for approval. Since the number of aircraft involved did not exceed normal equipment levels for a tactical fighter wing, the fact that the conversion included an increase in numbers to bring the 401st to authorized strength was not brought to the attention of ISA or State. When ISA did learn of the proposed increase in early August 1969, we of course promptly informed the Department of State.

On June 30, 1969 the JUSMG-MAAG in Madrid advised the Spanish High General Staff—the usual contact point for such matters—of the Air Force plans. The Spanish were informed that the modernization would permit the 401st to carry out its mission fully.

Most Madrid newspapers gave prominent coverage on August 11 to the proposed conversion, based on an Associated Press story. For the most part these accounts were factual and straightforward. The official Span-

ish wire service did comment: "Generally well informed circles in Madrid emphasize contradiction between the announcement and the current phase of negotiations on bases between both countries." The report continued to say, however, that the shipment of F-4E's did not imply any change in the terms of the existing U.S.-Spanish agreements. Madrid papers also carried a report from Washington explaining that the new planes were only a normal replacement of old aircraft and not part of any diplomatic decision about the bases.

In August, however, the Spanish Government voiced its concern over both the proposed increase in aircraft and the increase in personnel. Due to these concerns, the Departments of State and Defense recently have agreed that the 401st conversion shall be limited to one-for-one, i.e., only 54 F-4 aircraft will be sent to Torrejon. The Spanish Government has been informed of this decision. The Spanish Government has been assured that the replacement represents only a modernization of equipment and bears no political significance as far as the status of the bases or U.S.-Spanish relations in general are concerned at present or in the future.

The 401st TFW is not presently equipped to carry out its mission fully, because of the shortage of 18 aircraft. The replacement of the 54 F-100's by 54 F-4's will not remedy this deficiency; nevertheless, the increased performance of the F-4 compared to the F-100 will contribute to a significant upgrading of our capability in the area.

The 401st has approximately 70 F-100 pilots. Their average tour of duty at Torrejon is three years. Conversion to F-4's will result in a net personnel increase at Torrejon of 242 men; estimated balance of payments impact is about \$500,000 annually. The personnel increase is due in part to the fact that the F-4 is a two-seat aircraft, and the number of flying personnel assigned when the F-4's are phased in will be 144; in addition, since the F-4 is a more complex aircraft, there will be an increase in the number of maintenance personnel. The F-100 aircraft released from the 401st conversion are scheduled for redistribution to support the authorized unit equipment levels of other active Air Force and Air National Guard F-100 units.

I hope that this information will be useful to you.

Sincerely,

C. WARREN NUTTER.

OBSCENITY IN THE MAILS

Mr. GOLDWATER. Mr. President, it was my pleasure today to appear before the House Subcommittee on Postal Operations to discuss the subject of obscenity in the mails. The subcommittee has been extremely diligent in combating this problem, and I am convinced that any bill which they adopt will be responsibly and intelligently written.

Mr. President, I only wish that my colleagues on this side of the Hill would gear up the Senate's legislative machinery so that both Houses would be acting together on this. The American people are deeply shocked and offended by the unsought and unwelcome smut mail which is invading their homes, and they are demanding action now on this subject.

Mr. President, in my testimony before the House subcommittee I attempted to identify the source of this national menace and to suggest new approaches by which we can put a stop to it. With the thought that my remarks might encourage the Senate to take some

action on this problem, I ask unanimous consent that my statement be printed in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

HALTING THE MENACE OF OBSCENITY IN THE MAILS

Mr. Chairman and Members of the Subcommittee, it is a pleasure for me to visit with you today to discuss the ways in which we can combat the ever-increasing menace of obscenity in the mails. I only wish that my colleagues on the other side of the Hill would rev up their legislative machinery so that both Houses would be acting together on this.

Mr. Chairman, I want to open my remarks by saying that the members of this subcommittee have my utmost respect for the excellent record which they have made in this field. This group has the distinction of holding more sessions this year on the subject of smut mail than all the other committees of Congress put together. Also, I know that this subcommittee handled five or six earlier measures designed to clean up the mails.

Mr. Chairman, it will be my purpose today to explore with you the ways in which Congress can build upon this record.

The present situation is completely baffling to most Americans. On the one hand there is a whole Government arsenal of anti-obscenity laws, including an entire chapter of the United States Criminal Code and several provisions of title 39, which are aimed at excluding indecent matter from the mails.

On the other hand there is a staggering number of complaints being made by individual citizens who protest that their homes are being inundated by a flood of unsolicited smut mail. The number of these complaints made to the Post Office Department alone has soared to well over one-half million in the past three years.

The actual number of Americans who are deeply irritated and offended by perversion in the mails can only be estimated. There is no question that it is enormous. A Gallup poll released just three months ago reveals that 85 out of every 100 adults interviewed said they favor stricter laws dealing with obscene literature sent through the mails. Translated into population figures, this means that one hundred million persons are dissatisfied with the existing postal obscenity laws.

Why is this so? What is the real difficulty with our present laws?

These are questions which I have been examining very closely in recent months. I have sought to get to the bottom of the reasons why this terrible menace continues to threaten the sanctity of American homes. Also, I have attempted to learn what solutions, if any, exist to control it.

Mr. Chairman, as a result of this study, I have formed the following conclusions, which I would like to share with you on the chance that there may be a new idea or two among them to aid in the fight for decency in the mails.

First, the major source of outrage among our citizens is the unsolicited mass mailing of advertisements by some fifteen to twenty large firms. These operators generally send out computerized first-class mailings, taken from regular mailing lists, to pander their filth. They are well-heeled businesses making as much as \$10 million a year in a market that runs into billions of dollars.

Second, the next great source of public concern is the fear that sexually perverted material will endanger the ethical, mental, and moral health of children. Many of the current mailings are specifically aimed at teenage children. The remainder is sent indiscriminately with a reckless disregard to the fact that a substantial portion of this trash may reach the hands of young children.

Third, there are three primary reasons why this misuse of the mails has not halted—The stringent and confusing definition of obscenity which different members of the Supreme Court have announced in recent years is one.

The fact that the newly enacted pandering law of the 90th Congress does not apply to unsolicited first mailings is another.

The fact that there is no national law aimed squarely at the protection of minors is the third one.

Mr. Chairman, it is clear that Congress can close up these loopholes. There is no longer any question that society may regulate the dissemination to youngsters of material which is objectionable as to them, but which could not be regulated as to adults. The landmark decision of 1968 in the second *Ginsberg* case persuades me that Congress has the Constitutional power to enact a strong new law to restrict the distribution of pictures and printed matter that are obscene to minors.

In this case, the Court upheld a New York State law specifically designed to protect children from obscene matter. This ruling settled the authority of governments to adopt one set of obscenity standards for adults and a separate set for children. That this approach offers unusual chances for effective enforcement is shown in the fact that the conviction upheld in *Ginsberg* involved the sale to a 16 year old of four "girlie" magazines.

If the Court is now willing to find that newsstand magazines are harmful to minors, I am certain it will find that the utter garbage which is infesting the mails is likewise obscene when sent to minors.

Thirty-nine of the State legislatures have adopted some type of special prohibition against the exposure of minors to obscene materials and it is high time that Congress does the same.

The second concept which I believe holds out a strong basis for cleaning up the mails lies in the power of society to protect the Constitutional guaranty of freedom of privacy.

To me privacy deserves one of the highest spots on the list of individual freedoms. It embodies the essence of the sanctity of a man's home and the right to enjoy the privacies of his life.

The basic concepts underlying the right of privacy date back to the laws of ancient Greece and Rome. It has been defined as a distinct and separate right in American law for the past 80 years and is regularly winning expanded interpretations.

The reason for this is easy to see. As great improvements in the means of communications bring all of us closer and closer together, it becomes increasingly simple for the intimacies of life to be intruded upon by those who pander to commercialism. To cast the individual citizen upon his own resources in the setting of modern times would be to leave him without adequate means to protect his privacy.

Thus it is that the Courts now recognize the authority of the State to protect a man's feelings as well as his limbs. The exercise of this power is particularly strong when the threat to privacy involves an invasion of a man's home.

There is a Supreme Court decision close at hand. In *Breard v. Alexandria*, 341 U.S. 622 (1951), the Court considered the validity of a municipal ordinance forbidding persons from going upon private residences to solicit orders for the sale of magazines, without prior invitation. The Court upheld the Constitutionality of the ordinance as a proper means to protect householders against "uninvited intrusions into the privacy of their homes."

Perhaps the foremost principle stated by the Court is that in cases where the Constitutional guarantees of free speech and

free press collide with the fundamental personal right of privacy, there has to be an adjustment of these rights. In the words of the Court, the privilege to engage in interstate commerce or free speech cannot be permitted to crush "the living rights of others to privacy and repose."

As you know, the most recent enunciation of the rule was made by a three-judge Federal court convened in California to consider the pandering advertisement law. In upholding the power of Congress to restrict unwelcome mailings, the Court said:

To require a commercial enterprise to strike a name from a mailing list seems little burden to impose to guarantee that dimension of privacy to an individual, otherwise helpless in his home, to "turn off" pandering advertisements which may be erotically arousing or sexually provocative to him and his family.

In my opinion, these decisions lay a solid foundation for the enactment of strong new controls to enforce the right of an individual to choose what it is he desires to see and read within his own home.

Therefore I propose that we act on these cases without further delay by doing one of two things. We should frame a stringent new law that bans completely any mailings by commercial dealers of unsolicited advertisements for smut material. Or we should prohibit all mailings of such matter to persons who declare that they do not wish to receive this type of mail.

Mr. Chairman, I believe the adoption of the controls I have proposed would slam the door on the kind of sexually oriented mail which is inciting the nation's anger. I might add, at this point, that I do not know of any single piece of legislation that could better carry out my objective than the bill introduced by Mr. Dulski and the Gentleman from Pennsylvania, together with Mr. Corbett and Mr. Cunningham of this subcommittee.

For my part, I was pleased to be the co-author of the first Senate bill that is aimed solely at protecting children against obscene matter. My bill is similar in many ways to the provisions of H.R. 10867 which pertain to minors.

One of the similarities of our bills is the fact that they each define obscene matter in a descriptive way. Each bill thereby follows the standards applied by the New York State statute that has been upheld by the Supreme Court.

Mr. Chairman, I urge that you do not change this approach. The need for a carefully drawn definition is crucial to the validity of obscenity convictions.

This point is emphasized in a decision handed down by the Supreme Court just after its approval of the New York law. In *Interstate Circuit v. Dallas*, 390 U.S. 678 (1968), the Court ruled that an ordinance of the city of Dallas was unconstitutional because the standards used to define obscenity were not definite and narrowly drawn. The Court said that this was so even though the ordinance had been adopted to protect children.

The Court specifically noted that the Dallas statute, unlike the New York one, was not drawn "in accordance with tests this Court has set forth for judging obscenity." In view of this signal by the Court, it is important that the "New York" type of definition is the one we should use.

Mr. Chairman, my studies in this field have turned up some data which increases my belief that Congress may enact much stricter controls over the dissemination of obscene materials to children. I will start with the fact that there is a child under 18 living in six out of every ten American homes.

Next, we can note that there are 35 million children in the age group under 18. This is clearly a sufficient number to deserve protection at the national level.

Finally, the official Labor Department sta-

tistics disclose that at least one-third of American wives in families with children under 18 are employed outside the home. The highest working force rate among women of all ages is that of married women with children ages 6 to 17. These ladies represented 45% of the entire women's work force and totalled over six million persons.

From this, Congress might properly infer that several millions of children who have arrived at a crucial, inquisitive stage of life will have an unsupervised opportunity to open the mail before their working parents return home.

Based on the above facts, it can be concluded that the access of children to direct advertising mail is so great that additional requirements should be imposed to decrease the chances they will be exposed to matter which is harmful to them.

Mr. Chairman, I do not want to leave the subject of a child-oriented statute without stating my belief that exposure to pornographic material is definitely harmful to minors.

Common sense will tell anyone as much. For the skeptics, however, the record contains many persuasive statements by responsible experts.

For example, in 1963 the New York Academy of Medicine published a report on the medical aspects of indecent publications sold at newsstands and circulated by mail. The Academy stated its belief:

(T) hat although some adolescents may not be affected by the reading of salacious literature, others may be more vulnerable. Such reading encourages a morbid preoccupation with sex and interferes with the development of a healthy attitude and respect for the opposite sex. It is said to contribute to perversion.

In addition, competent medical witnesses have appeared before committees of the Congress to decry the harmful influence of obscene material on juvenile behavior. One of the worst possible relationships was discussed by Doctor Benjamin Karpman, then Chief Psychotherapist at St. Elizabeths Hospital, who said:

You can take a perfectly healthy boy or girl and by exposing them to abnormalities you can virtually crystallize and settle their habits for the rest of their lives. If they are not exposed to that, they may develop to perfectly healthy, normal citizens. It is here that objection comes upon pornographic literature.

There are many distinguished professionals in the medical field who would be ready to add to this record, and I am hopeful that the subcommittee will invite a fair number of psychiatrists, law enforcement officers, and other experts who have had contacts with consumers of obscenity to appear before you during these hearings.

Turning to the specific provisions of H.R. 10867, I would like to make a few observations that might fit into the legislative record you are shaping.

The first question I want to raise is whether the new section 4011, which creates a category of nonmailable matter as to minors, is intended to impose a strict liability upon the sender to know the recipient is a child.

It seems to me that it does, and I think this is an excellent way to attack the problem. But, in order to guarantee the law will pass the scrutiny of a permissive Supreme Court, I wonder if this feature should be limited to commercial dealers who do not take reasonable precautions to keep their trash out of the hands of minors.

It is true that under certain child protection laws, knowledge that the child is a child is not an essential element of the particular crime. The laws against furnishing liquor to children come to mind.

Lacking a clear precedent in the free speech area, however, I am not at all sure that we

can brush aside the element of "knowledge" so easily.

What we could do is to put the smut merchant at his own risk on the question of age whenever he falls to have a professional assurance that the addressee is an adult. Under my proposal the dealer in smut would be required to show that he has taken all reasonable precautions to learn the age of the addressee.

By making this one change in the section, I believe we would safely handle the Constitutional thorns. Further, we might write into the section the defense which would be permitted. For example, the dealer might be allowed to rely upon a professionally designed mailing list that promises a high degree of certainty that it contains the names of adults only.

Such lists can be obtained. I am told that a good list compiler can select such detailed groups of people as new parents, parents of babies born only in private hospitals, or even parents who are new at being new parents. With such ingenuity, I am certain the list compilers and list brokers will be able to rise to the challenge given them to preselect families without children under a specific age. Of course the lists must be checked at regular intervals to be accurate and the statute should require that this be done.

Whatever degree of liability should be imposed on smut peddlers, I would suggest that the statute be made applicable only in a commercial setting. For example, the language should not catch the case of relatives or friends who use the mails without any purpose of material gain.

The source of the national uproar about obscene mail is a few major dealers and it would seem best to me to keep the bill on target by hitting straight at them.

The final change which I suggest is to expand the scope of the bill's criminal provisions. The only person who is covered by the offense seems to be the one who deposits matter in the mail. I fear that this might enable the maker of obscene films or the publisher of indecent literature to evade the penalties of the law by using an independent distributor to handle the mailing of his product. This could be avoided by applying the criminal sanctions to persons who manufacture or publish pornography knowing or intending that it will be sent in the mails in violation of section 4011.

Mr. Chairman, in looking at the ways in which the bill is designed to protect the right of privacy, I am satisfied that you have framed a valuable new approach. Sections 4012 and 4013 are expressly limited to advertisements only, and thereby, are wisely focused on the commercial aspects of the problem.

Also, the scheme used in section 4012 is effective. This provision requires that the disseminator of smut must refrain from mailing his product to anyone on a list of persons who have expressed their unwillingness to receive such matter. I realize this will force the distributor to use computers to scan the hundreds of thousands of names on such lists, but many, if not all, of the present merchants in this illicit industry are already using such equipment. In my opinion, it is high time Congress decided to shift the burden of keeping this unsought material out of homes where it is not wanted to the purveyors of filth, even if it ups the cost of their product.

In summary, Mr. Chairman, I can only recommend that the subcommittee continue its efforts until this public menace is stamped out once and for all.

DEFECTIVE 1970 CARS SHOW LAXITY OF HIGHWAY SAFETY BUREAU

Mr. RIBICOFF. Mr. President, this morning's Wall Street Journal contains

a significant story by Charles B. Camp on the defects in the 1970 model automobiles. The existence of these defects is well known. They are all too familiar to every car owner.

Their importance is in what they tell us about the Nation's highway safety program. More than 3 years after the passage of the most far-reaching auto safety laws in our history, American motorists are still victimized by safety defects and shoddy workmanship.

The Highway Safety Bureau has been stagnated for more than 7 months without a Director. During this time the Bureau has drifted aimlessly. It has provided no leadership in traffic safety.

There are no significant new safety features on the 1970 models and none appear in prospect for the 1971's. Plainly, we are making no progress in designing and producing safer cars.

Much of the responsibility for this situation rests on Francis Turner, the Federal Highway Administrator. Under his stewardship the safety program has languished.

I have proposed that the Highway Safety Bureau be taken from under his jurisdiction and established as a separate entity within the Department of Transportation. The article in the Wall Street Journal demonstrates the need for this action.

Mr. President, I ask unanimous consent that the article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

AGGRAVATING AUTOS: REPORTER FINDS MANY FLAWS IN TESTS OF 1970 CARS DURING MONTH OF TESTS—A PAIR OF BUICKS BOIL OVER, PARTS FALL OFF A HORNET—SOME FLAWS ARE IN DESIGN—IN SEARCH OF A BIG BACK SEAT

(By Charles B. Camp)

DETROIT—If you're in the market for a new car with enough back-seat leg room for adults, don't buy a Buick Skylark. There's so little space between the front and back seats that average-sized people are miserable. Better try a Ford Torino fastback.

On the other hand, if you're interested in safety the Torino fastback probably isn't for you either. The fastback roofline is so low in the back that it severely restricts visibility to the rear. Better try a Chrysler.

But if you're easily flustered, maybe you shouldn't get a Chrysler either. On the dashboard of a well-equipped full-sized Chrysler you will find 22 knobs and buttons—an awful lot of gadgets to keep track of while you're trying to concentrate on driving.

If you're a discerning buyer, in fact, you may have a hard time finding any car that's completely satisfactory among the dozens of models that U.S. auto makers have whipped up for the 1970 model year. Even if you do find your dream buggy, moreover, it may well be delivered with assembly defects that will be annoying at best and perhaps downright dangerous.

BEST FOOT FORWARD

These, at least, are the conclusions reached by a reporter who has spent much of the past month trying out the 1970 models. Each year at this time the four major U.S. auto makers invite automotive reporters to climb in, out, over and under their new cars and drive them hither and yon. The idea, of course, is for Detroit to put its best foot forward in hopes that the writers' glowing reports will send buyers flocking into the showrooms.

This year buyers might logically expect

cars to be better than ever. Federal regulations now require a number of safety features that were practically unheard-of only a couple of years ago. Auto companies, trying to avoid embarrassing recall campaigns to correct defects, have announced elaborate programs to catch assembly errors before cars leave the factory. Prices are higher (up an average of 3.5% from 1969 models), and auto makers have saved a lot of money on the 1970s by forgoing radical styling changes that normally cost them millions of dollars in retooling. Presumably, the latter move would leave more money available for quality control and mechanical improvements.

But for a reporter who has spent weeks struggling with gadgets that don't work, puzzling over look-alike control knobs, squeezing into cramped seats and listening to a bewildering array of squeaks and clunks in some very expensive autos, it's hard to see much improvement.

To be sure, the cars offered to newsmen are early-production models that tend to have more bugs than those turned out after workers get more experience making the new cars. But in their effort to make a good impression, auto makers take special pains to correct the bugs in preparing the cars for reporters. Thus, presumably, the newsmen test-drive cars that get far closer attention than those delivered to an ordinary buyer.

SPEWING ANTIFREEZE

Yet the most lasting impression is that even the carefully selected display models are put together poorly.

Two Buicks boiled over like a pair of Model Ts while being driven by newsmen. It seems one threw a fan belt from its engine pulleys, causing the radiator to overheat. The other had an improperly attached radiator cap. Both spewed large quantities of antifreeze onto the ground.

The combination air-conditioner and windshield defogger on a \$5,600 Ford Thunderbird quit minutes after being turned on during a rainstorm. Since designers have eliminated the little vent windows that used to provide air for defogging, the only way to keep the windshield clear was to open the main side windows. That let rain pour in on the driver and a passenger.

In a big four-door Chrysler New Yorker, the front seat belts were improperly installed in their containers on the floorboard and couldn't be pulled out for use. A stout tug on the passenger-side belt finally freed it, but the belt on the driver's side resisted all efforts to yank it loose.

ONE BUMP AFTER ANOTHER

An American Motors Corp. Hornet compact shed a piece of a plastic air-conditioner outlet when the car hit a bump. On another bump, the glove-compartment door popped open. On a third, a plastic container of windshield washer fluid dropped from under the hood and hit the road with a splat. When the driver pulled up the door lock button to leave the car and retrieve the container, a small plastic molding around the button came loose.

On one big Oldsmobile 98 Holiday coupe, the chrome trim on the seat wasn't screwed on properly. Also, a chrome knob was missing altogether from the latch that secures the folding back on the front seat—leaving a bare steel shank sticking out and threatening to snag clothing and scrape the legs of back-seat passengers.

On three of four Mercury Montego models inspected, the stick-on simulated wood dashboard trim was peeling back at the edges, and on one Buick Skylark smears of goopy black windshield sealer were spread along the dashboard near the edge of the glass.

In theory at least, these problems could have been corrected on the assembly line. But other problems with the 1970s would be much harder to solve because they are designed into the cars.

On one line of new Thunderbirds, for instance, it's almost impossible for the driver to reach the outside half of his seatbelt, which is stored in a container on the floor near the door. The reason: A new "control console," housing controls for a battery of options such as power windows and power seats, is mounted on the inside of the driver's door. It comes so close to the side of the seat that the hand of an average adult won't fit down to reach the seat belt.

Some big Buicks have an air-conditioner outlet attached to the bottom of the dashboard near the steering column. If a driver tries to use his left foot on the brake (as many drivers do with automatic transmissions), he can hit the air-conditioner outlet instead. Indeed, on one test model the outlet had been broken away from its mounting screws—presumably by an errant foot seeking the brake.

Visibility problems are common. The popular fastback roofline on many cars seriously hampers a driver's rearward visibility by enclosing a large area between the rear side windows and the back window. On Chevrolet's new Monte Carlo luxury car, for example, such blind spots extend more than two and a half feet on each side of the car at their widest points. Ford has made its Torino fastback even racier looking by dropping the roof an inch or so while raising the height of the truck lid—the net result being a sharp reduction in rearward visibility.

The placement of control knobs and gauges is often irksome. Several GM and Ford Motor Co. cars have such wide-spoked steering wheels that when the car is pointing straight ahead the spokes obscure the driver's vision of such controls as light switches and parking brake releases. If a driver uses a shoulder belt, he's unable in many cars to reach a number of dashboard controls.

NO MORE HORN BUTTON

To honk the horn on a 1970 model requires a new set of reactions. The familiar horn button and horn ring have disappeared on most models. To blow the horn on some new GM cars you push little tabs on the steering wheel spokes. On some Chryslers, you squeeze a band on the inside of the wheel rim—an arrangement that can cause some unexpected hornhonking if you grip the wheel hard while making a turn. On some Ford models, you squeeze the top of the cross spoke.

But don't expect consistency even among lines made by the same company. On some GM and Ford cars, you must squeeze the rim just like on many Chryslers, and on one GM model you just push the padded center section of the wheel almost anywhere and the horn blows. (American Motors' Hornet has a still different horn problem. Whenever someone flips the back of the driver's seat forward to get into the back seat, the headrest hits the steering wheel and blows the horn.)

Over the years, Detroit's strongest selling point for many customers has been the comfort, convenience and luxurious silence its cars offer by comparison with many foreign models. But luxury-loving buyers may find some surprises on the 1970s.

There are, for example, some mysterious noises. On a big Mercury Monterey, persistent squeaks emanated from the front end. (A Ford Motor Co. man apologized for the noise; he said he had missed that problem because he had spent an entire afternoon trying to fix another squeak in the rear of another Mercury.)

NO EASY WAY

Detroit's biggest sacrifice of comfort to styling is probably in the back seats of its cars. There seems to be no easy way to get into the back seat of a 1970-model car, particularly a two-door model. What's worse, there are few back seats worth getting into anyway.

If a person of average size or larger tries to get into a back seat by boldly stepping in face first he may find that he can't turn around to sit down. On the other hand, backing in can be hazardous—as in the new Chevrolet Monte Carlo, which has a sharp angle on the door jamb to prod the posterior of a passenger who tries it.

Once inside, you find the center sections of the Hornet and the Ford Fairlane, among others, are definitely to be avoided; they are rock-hard. Feet suddenly become troublesome appendages in the backs of some cars. There's little or no room for them.

Consumers Union, the product-testing organization, says it considers 26 inches of space between the front and rear seat backs as a bare minimum for reasonable comfort. Yet a number of 1970 cars fall short of the mark. One Buick Skylark two-door model offers only about 24 inches—despite a claim by Buick officials that such intermediate-sized cars are the family cars of the future.

Even when a car looks bigger on the outside, there's no guarantee it will be bigger on the inside. Ford's Torino is five inches longer than the 1969 version, but all the added space is on the front end, not in the passenger compartment. The new Chevrolet Monte Carlo is nine inches longer than a basic Chevelle, but the inside seating room is identical, including only about 25 inches of rear leg room.

AN APPEAL FOR HUMANITY IN TREATMENT OF AMERICAN POW'S

Mr. CHURCH. Mr. President, the treatment of American prisoners of war by Hanoi and the National Liberation Front is indefensible. Both have failed to observe the minimal provisions of international law for the welfare of prisoners of war.

North Vietnam and NLF claim that they are not bound by the Geneva conventions of 1949. Despite its status as a signatory of the conventions, Hanoi asserts the right to treat captive Americans as criminals. The NLF provisional government hides behind the fact that it was not in existence at the time of the signing of the Geneva accords.

No legalisms can absolve any government of its obligation to accord humane treatment to prisoners of war. The United States estimates that 1,390 Americans are being held by Hanoi and the NLF. About 1,340 of the prisoners are soldiers or airmen who were captured in the line of duty. An estimated 50 prisoners are civilians—construction workers, foreign aid administrators, missionaries, and diplomats—who had not engaged in any form of combat. Many of the civilians were taken prisoner while they were giving medical aid, food, and technical assistance to Vietnamese citizens.

The Hanoi government and the NLF have refused to reveal the names of the prisoners, or to correct lists of presumed captives provided by the International Red Cross. They have not permitted inspection of prison camps by international welfare agencies. They have interrupted the exchange of mail between prisoners and their families. They have given no credible assurance that the prisoners receive adequate food, shelter, or medical care. To the contrary, they have paraded sick and wounded American prisoners as objects of symbolic vengeance.

The cruelty of this policy is felt most deeply by the prisoners' wives and families. For many, the pain of separation is worsened by terrible uncertainty about whether their loved ones are alive. Recently, 350 dependents—the anxious wives and children of the American POW's—came to Washington to make the world aware of the prisoners' plight and to seek help in their effort to obtain news about their husbands and fathers. Hanoi's refusal to provide this information is inexcusable.

The obstinacy of the Government of North Vietnam and the NLF increases bitterness and suspicion, and raises still another barrier to a successful settlement of the war. Without producing any military or diplomatic advantage, it multiplies grievances, spreads distrust, and has much the same effect on progress toward peace as escalation on the battlefield.

It is time for Hanoi to recognize that its treatment of prisoners of war is morally repulsive to people of all shades of opinion in the United States and the world.

Even before their wives and children came to Washington, I had joined Senator BIRCH BAYH of Indiana as a co-sponsor of his resolution urging the United Nations to act on behalf of the prisoners. I am sure that all Members of Congress share a common desire to bring about a change in Hanoi's prisoner-of-war policies.

As a Senator who has long objected to our involvement in Vietnam, I call on the North Vietnamese and the NLF to observe the canons of morality and international law. They should identify the prisoners of war, allow the free flow of mail, permit inspection of the detention facilities by the International Red Cross, and give real evidence that the captives are receiving adequate care. In the name of our common humanity, they should do so now.

SENATOR MONDALE APPEARS ON CAPITOL CLOAKROOM PROGRAM

Mr. NELSON. Mr. President, during the August congressional adjournment, the distinguished Senator from Minnesota (Mr. MONDALE) was interviewed on the radio program "Capitol Cloakroom."

I was impressed with the Senator's thoughtful comments in response to questions about vital issues such as the President's proposed welfare reform, the future of the Office of Economic Opportunity, revenue sharing, defense spending, and tax reform.

I ask unanimous consent that a transcript of the interview be printed at the close of my remarks. I commend it to the attention of Senators. The views which Senator MONDALE expressed are extremely relevant to all of us as we discuss and debate national priorities, and consider the appropriate balance between defense expenditures and investments in vitally needed domestic programs.

There being no objection, the interview was ordered to be printed in the RECORD, as follows:

TRANSCRIPT OF "CAPITOL CLOAKROOM,"
AUGUST 13, 1969

(Guest: Senator WALTER F. MONDALE)

COMMENTATOR. Senator Walter Mondale came to Washington in 1964 when he was appointed to fill out the unexpired Senate term of Hubert Humphrey. He was elected in his own right to the Senate in 1966. He's a Democrat, a lawyer and a former Attorney General in Minnesota. He's had a long-time interest in consumer affairs, and before coming to the Senate he served on the President's Consumer Advisory Council. His Committee assignments since coming to the Senate include: Banking and Currency Committee, and four of its subcommittees; the Labor and Public Welfare Committee, and five of its subcommittees. He also serves on the Select Committee on Nutrition and the Special Committee on Aging. Senator Mondale, welcome to "Capitol Cloakroom".

SENATOR. Thank you very much. I'm delighted to be here.

COMMENTATOR. Senator, as a member of the Labor and Public Welfare Committee, you are probably as familiar as any of your colleagues with the President's proposals for a new welfare system. Some have called it a "cruel hoax". Would you agree?

SENATOR. No, I wouldn't agree with that characterization. I think there are some serious problems that we will have to deal with. There are certain parts of the proposal that many of us have advocated and which I applaud. The idea of helping the working poor is something that I think should have been included a long time ago. The idea of a national minimum welfare standard is another concept I find a good one. The idea of trying to increase incentives so a person on welfare who is employable can do better by working than not working, I find a good idea. The idea of bringing payments to the families of unemployed fathers, something we fought for for years over Republican opposition; indeed, most of these concepts have been fought over Republican opposition—are concepts which I applaud, and I congratulate the President for endorsing them. But there are many problems in this proposal that have to be analyzed. I think the level of Federal support still leaves millions of people in nearly destitute circumstances. The idea that—and it's not quite clear what the Administration proposes to do here—withholding Food Stamp help may actually leave some of them in worse shape than they are today—and some of them on the verge of starvation. The idea that the President stated in his message that the Nation can hope that most people on welfare are employable I think is just not an accurate one, or at least it is going to raise hopes that I don't think can be fulfilled. If I might just cite a few figures. There are about 9½ million people on welfare today. About 5 million of them are children; 2 million are aged and elderly and unable to work; 1 million are blind and disabled; 1½ million are mothers with families, and even the President is not asking mothers who have pre-school children to work. Indeed, I think there is grave question as to whether it is always the best idea to take a mother away from her children. We may do more long-term harm than good. There are only about 80,000 adult males. And many of them may not be employable.

COMMENTATOR. Do you feel that a \$4 billion program represents a real commitment to doing something about welfare needs?

SENATOR. It's only a start. And I think when we cost this package out it's going to cost much more than \$4 billion to do even what the President is asking for.

COMMENTATOR. Senator, one of the President's proposals sort of reorganizes the Office of Economic Opportunity and turns it into—as I understand it—a sort of "think tank". Do you think that's a proper role for OEO?

SENATOR. I think the President's proposals mean the end of OEO as we have known it. One of the best things OEO has done is to permit the poor to advocate their own cause. It assumes the poor know something about their own circumstances, and are able enough to express themselves. Now that's not always a happy situation. Sometimes it's down-right distressing. But if we are going to have the response by the poor that we need to make them a part of our society and give them a chance, I think it begins with the right of the poor to say something about their own lives. This thing of having outsiders study them, examine them, cross-examine them, poll them, and to have all manner of people who don't live in the ghetto and with the poor, decide what's best for them has a certain arrogance built into it. More than that, we have studied the poor to death; indeed, I think if we just had saved the money we spent on studies and divided it among the poor we probably would have ended poverty by now. And more than that, how long do you have to study hunger? It's not that complicated a concept: if kids don't have enough to eat, you don't need another study. How long do you have to study quality education to decide that that's important? How long do you have to study the issue of decent housing? How long do you have to study whether it is good for children to be exposed to rats? The time has come, it seems to me, to act.

We need to know more—I'm not saying we know it all. But we often learn, in my opinion, more by doing things than by sitting back abstractly without any experience and studying it. It's ironic that the President in proposing the ABM system—which many of us feel will not work—said we don't know if it will work, but we'll spend billions of dollars trying it out, and we'll keep trying, we'll keep making our mistakes, as we proceed toward deployment because that's the best way to learn. That's the ABM system, but when it comes to human beings, who are starving, living in indecent housing, with bad education, and all the frustrations that make up their lives, we say let's not do a thing until we have the perfect answer. I think it's the old-fashioned dodge.

COMMENTATOR. Senator Mondale, if I understand what the President has said correctly part of what he is saying is that money is better spent if you can return it through the system of federal revenue sharing of cities and states—what he calls the new federalism—better spent that way, turning the tax money back to the local governments to let them decide how and where to spend it, than to have it funneled through something such as OEO. Question: what's wrong with that?

SENATOR. There are many ways of helping local government. Local governments today are in here pleading for better funding of Title I of the Elementary and Secondary Education Act, library assistance and other kinds of educational assistance. Local governments are in here asking for better support of urban renewal and housing programs. And I think those matters should be funded in order to achieve specific objectives. I also believe in revenue-sharing. If I may say so, that's a Minnesota idea. It was proposed and fashioned by Walter Heller of Minnesota. I believe in revenue-sharing, but even there the President has announced a concept but not funded it. The first year of its operation is about two years away, and even then it will be half a billion dollars the first year. In my state of Minnesota it will amount to \$21 million. We're grateful for the help, but it won't help much. The state of New York I think would receive \$100 million, and they have a state budget—let alone local costs—of \$10 billion. One top economist, who is an expert in federal revenue-sharing, told me that at the end of the first five years of the President's plan states would be receiving \$5

billion in revenue assistance—states and local governments—and at that time state and local governments in this country will be spending \$200 billion. So I think it's another example of a fine concept, and I applaud the President for that, because I think we need revenue-sharing. But I believe that it's an unfunded concept.

COMMENTATOR. Senator Mondale, when you and your colleagues return from the summer recess and get to work on the welfare proposals, what do you think are the prospects for those proposals passing as they stand now? Or what changes do you think should be made to increase their chances?

SENATOR. As to the prospects, I simply don't know. We've passed many of these incentive features and other features in the Senate before, and we've lost them in the House. And I'm not an expert on what the House is willing to accept. I'm hopeful the President's message making this a key issue in American politics will cause us to concentrate on these problems more than we have in the past. I think if we do that there are hopeful opportunities for improvement. The real question returns to how much substance we're willing to give to these programs. We've authorized dreams around here and we continue to appropriate peanuts. This is one of the reasons there is such cynicism by Americans. They hear about these great programs like housing—and there's no money for housing; they hear about wonderful programs to relieve the poor, and there's no money there. And wonderful programs for education and only a pittance finally arrives. So the real question I think is one of priorities. We can adopt the concepts—that may be fairly easy—but it takes funds to reorder our priorities. We spent more on the ABM this year than all of the President's proposals. The Defense Budget—takes 81 billion dollars, and the administration is supporting those much higher spending levels in the defense field, and not increased spending in the human field. If they would support us in re-ordering our priorities—have an adequate defense to be sure—but help us to cut out this waste, I think we can provide the additional money we need for these human programs without increasing the budget.

COMMENTATOR. Is a part of the battle that is going on over the Defense Department Budget now do you think connected with this concern for social programs? Is it in your own mind?

SENATOR. Yes, I don't think there's any question about it. I think it ought to be enough to be opposed to waste in any Department that there is waste—that's enough justification. But I think the thing that forces us to finally do what we should have done 15 and 20 years ago—in terms of examining the Defense Budget like we do every other budget—is that the people of our country are getting sick of this. They're asking us why there's no flood projects but more and more defense budget; no education; no housing; none of the things that they need; no tax relief on their real estate taxes and the rest. And we finally have to answer those questions when our constituents ask it. And the only answer is that we have to start spending our money wisely and we're finally getting down to the task of doing so.

COMMENTATOR. Senator, speaking of cutting that Defense Budget, you proposed this week that the Navy not build a \$377 million nuclear aircraft carrier. The Russians are expanding their fleet. Why did you propose that?

SENATOR. The Russians, it is true, are expanding their Navy, but they're not building any aircraft carriers, nor have they ever built one, nor do they plan to build one. There are many reasons I base my arguments on in asking that this carrier be cut from the budget. We now have 15 attack carrier forces. That is more than all the rest of the

world put together. Indeed, most world powers have no carriers at all. I think we're among the great powers like Brazil, Australia and perhaps France in having them. The carrier is very vulnerable. The carrier is a floating gas-tank with ammunition and bombs and heated stem. And it's very, very expensive for carriers. Now, I'm not against aircraft carriers totally. But the truth of it is, no one has ever justified why we need 15 attack carriers that cost us 7 billion dollar a year now—and if the Navy has their way and we replace all our existing conventional carriers with nuclear-powered carriers, it'll cost probably double that at least within the next ten years. The cost of land-based aircraft is much, much lower. Indeed, without going into the details of the statistics, three nuclear-powered attack carrier forces—and that's what they need for every wing on the line according to their present plans—will cost about \$4.2 billion to build. A land-based wing can be taken care of with the runways and hangars and everything else that is needed, for \$58 million. And I think there are some real savings to be made by reducing the number of carriers.

COMMENTATOR. Senator, the larger question involved here, as stated on the floor of the Senate by Senator Stennis the other day, is: is it a fact that you and Senator Fulbright and others who have carried forward this philosophy that we need to cut back on defense spending, have carried it to the point where you're creating as Senator Stennis put it "mistrust and distrust" of the whole military establishment?

SENATOR. I have tried in every statement that I have made to make it clear that I think we need an adequate defense. I've tried to make it clear that I respect the military leaders—they're doing their job. And I've tried to make it clear that I realize that defense isn't cheap. But I think it's a mistake, and I'm not saying that Senator Stennis is doing that because I don't believe he is, to take the position that to question the Defense Department is to impeach the standing and integrity of the military leaders. As much as I respect the military I don't believe there is anything special about their efforts that should place them in a privileged sanctuary in the budget-making process. Because we haven't asked them the questions we should have asked over the last 30 years, and in part because they can hide many of their mistakes with security classification, we've really not done our job in the Congress. The Constitution invests the responsibility of raising the Army and Navy specifically in the Congress—it's our job, we can't escape it under the law. And I yield to no man in expressing my respect to the military services. But I believe respect does not require me to accept everything they tell me.

COMMENTATOR. Senator, this is a philosophical question, I suppose, but why is it all of a sudden these questions are being asked? They weren't asked before, we all agree with that. What's caused this mood in the Congress to come about? Is it dissatisfaction growing out of the war, or what is it?

SENATOR. I think some of it is related to the war in Vietnam, in that that war was a serious mistake. And perhaps some of the advice we received from the Pentagon wasn't as good as it could have been. But I think the other thing is basically that the country is coming apart; unparalleled inflation; interest rates the highest they've been in a hundred years; a nation which is wealthy but in which there are millions of persons so impoverished that they're not going to have any choice unless we reorder our priorities; a nation that has come to the point where thousands of our most gifted youth are so estranged that they have become militant, some of them violent and so hostile that I think they scare all of us. I don't believe that is the basis for a public policy, but I think every American shares the feeling that there is something very wrong with our country

that needs remedying. And most of us come up with the answer that the problem has been for far too long we've under-emphasized our effort to bring real hope and opportunity to all of our people. And over-relied on an ever-expanding military budget to provide all of our answers.

COMMENTATOR. Senator, you mentioned high interest rates—the highest in a hundred years—which brings us around to the subject of the economy. Automobile sales are down, factory output has had a slide in the last month and a half or so. Are we on the edge of some kind of recession?

SENATOR. I don't think anybody really knows. We know this: the brakes are really on. The Federal Reserve Board has run up interest rates to an all-time high; credit restrictions are at an all-time high; and this affects our whole economy. We know that the Federal Budget has gone from a deficit of \$20 or \$22 billion just a few years ago to a surplus of \$3 billion, which is another form of breakage.

COMMENTATOR. Is that a real surplus? There are some who would say that this is a matter of juggling figures.

SENATOR. In a budget that is as large as ours, there is always going to be that argument. At least it's in balance, which makes the Federal budget non-inflationary. And there may even be a slight surplus, depending on how you do the figuring. But in any event, the Federal budget is not contributing to inflation today. There are some top economists who believe that we may be in the process of undertaking an over-kill, that in some conceivable future period, maybe a year from now, we will see a sharply rising unemployment rate. I guess this is what disturbs me the most because I don't believe we're going to stop this inflationary drive—and we must stop it—without some strong breaking. I don't think that's possible. But we ought to have a strong program—what Walter Heller calls a "net"—to catch the people who drop out of the system. If you have a 4½% unemployment rate—which I think seems very likely pretty soon—translated in the ghetto and among the poor, that could be a 20, 30 or 40% unemployment rate. If you talk about a 19-year-old black male you're probably talking about a 60% unemployment rate. Now that's social dynamite that's gonna explode on us, and it's terribly unfair. We have a national program for taking unskilled people, trying to get them into industry through this jobs program of subsidizing and training them. Those are going to be the first people to lose those jobs. I think there's going to be a feeling of cynicism, of despair that is going to be very hard to contain. I think we need a national program of public service employment to provide employment to these people who really pay the full price of our fiscal and monetary restraint, who really pay the full price of trying to bring this economy under control.

COMMENTATOR. What do you predict are the odds for the House-passed tax reform bill when it gets to the Senate?

SENATOR. I think there will be substantial tax reform. I favor it. It's too soon to know just what the details of that will be. I think much of the House-passed version will be adopted. As you know, the Senate is far less predictable than the House, because we have the open right of amendment on the floor. I think we may liberalize that package some, and I am hopeful that we can do so.

COMMENTATOR. Senator Mondale, since you've gone that far with a prediction, let's talk about the 1972 Democratic Presidential Nomination. It's become an article of wisdom around this town the past few days that Senator Edward Kennedy of Massachusetts is no longer a viable candidate of high potential for the Democratic nomination. Would you agree with that?

SENATOR. I would take his own word. He said that he intended to seek re-election and

to serve out his full next term which would take him past the 1972 elections. I doubt that he harbors any serious intentions to seek the Presidency in '72. The period between now and '72 is a long time in politics, as we are learning. A week is a long time these days in American politics. So no one can be sure, but I think that's likely to be the result.

COMMENTATOR. If that is the result, is your old friend and part-time tutor former Vice President Hubert Humphrey back in contention now?

SENATOR. I don't know. I'm sure he's giving it consideration. I think his first move will probably be to seek re-election to the U.S. Senate in Minnesota, which I hope he'll do. I believe he will be elected, and take a look at it then. I think it's really too soon to know.

COMMENTATOR. Senator Mondale, with all of these uncertainties, is the Democratic Party nationally in disarray as some would say?

SENATOR. The Democrats seem bent on breaking the record for disarray year upon year. We're very good at fighting, and we seem to want to prove that on almost every possible occasion. But, if I may say so, I think that under Senator Harris' leadership the National Committee is starting to address itself to the real problems. There is strength in the right kind of controversy. We're starting to reform our Party the way we should have years ago. We're starting to develop rules to permit more relevant and open access to all people, which we should have done years ago. We're starting to read real power into the anti-discrimination provisions of our rule adopted in 1964, and we're talking about the real issues, as controversial as those are.

COMMENTATOR. Unfortunately, we're running out of time. Thank you for being with us on Congressional Cloakroom.

COMMONSENSE MAKES COMMONSENSE

Mr. EAGLETON. Mr. President, in this day when issues are getting more complex, when society and the institutions of its governance proliferate, when policies made by unseen and, some would argue, mindless men, can cost billions of dollars and thousands of lives, when people often feel they can no longer understand or control their own destinies, it is heartening to find that good commonsense still makes good commonsense.

I was greatly impressed recently by a letter from a constituent from New Bloomfield, Mo., written in frustration but with tremendous insight.

I am further heartened because from my travels through Missouri and the country, I believe that the attitudes expressed in this letter reflect those of a majority of Americans, although they are not always articulated as well as they are in this letter.

I therefore ask unanimous consent that a letter written by W. W. Marshall, Jr., of New Bloomfield, Mo., be printed in the RECORD.

There being no objection, the letter was ordered to be printed in the RECORD as follows:

NEW BLOOMFIELD, MO.

DEAR SENATOR EAGLETON: I'm over 40, a WASP, have 4 kids in school (borrowed this sheet of paper from one), just break even, pay as I go if I can (can't). Its 9:30 p.m., I just got in from working on my 1952 8N Ford tractor so I can do more tomorrow (I have 326 acres). I think I'm very common and I don't say what I think often *cause I doubt if it does much good* but here goes:

1. Its pure bull that our "national pride" demands that we beat the Reds in building that SST at 125 million/yr. for 5 years! If the Reds have one lets buy one from them! Nixon said that in telling us about the SST today. (Nat'l Pride bit.)

2. My feeling is that the war in Vietnam is wrong, we are wrong in being there, we have no business there now or ever in the past. I believe the stupid protestors on the college campuses, the S.D.S., the Yippies and Hippies are telling it like it is and I see more and more middle aged common working people like myself seeing it this way. Their methods may be stupid but so is the war and the draft and its methods. I vote for the young more and more.

3. I'm against the anti-riot bill by which eight people are being tried in Chicago. Please examine this one and tell me who is protected, the people or the system, I think its the system.

4. What a joke it is trying those 6 Green Berets in Vietnam. Come on now, if you want to try someone for murder why not try the commander in Vietnam? I think the trial is a fake and so does everyone around here.

5. I heard that we are to spend 25 billion on the A.B.M. and some new plane for the A.F. I heard that 5 billion would solve our pollution problems but we can't get the 5 billion. I believe we should spend the 5 or 10 billion on pollution and damn little on the first two.

6. I never thought I would say it but I favor very little for defense, less on foreign aid, not a man in Vietnam and do favor some form of income for everyone, even bums.

Thanks for your patience in me.

W. W. MARSHALL, JR.

P.S.—You seem to be doing O.K., just wanted to sound off.

SENATOR MCINTYRE SPEAKS ON NEW COMMUNICATIONS GAP

Mr. MUSKIE. Mr. President, on September 22 the distinguished Senator from New Hampshire (Mr. McIntyre) spoke at Dartmouth College at ceremonies marking the issuance of the Dartmouth College case commemorative of postage stamp.

In his address, Senator McIntyre examined what may well be the most significant communications gap in our society, the gap between the college educated and the non-college educated.

Warning that society might not be able to sustain a further widening of the breach, he called upon the college-educated to "go the extra step and make the extra effort" to close the gap.

Mr. President, not enough has been written or said yet about this particular breakdown in intergroup communications, and I was pleased to read Senator McIntyre's consideration of it.

I ask unanimous consent that the pertinent section of the Senator's Dartmouth address be printed in the RECORD.

There being no objection, the excerpt from the address was ordered to be printed in the RECORD, as follows:

ADDRESS BY SENATOR THOMAS J. MCINTYRE AT CEREMONIES MARKING POST OFFICE ISSUANCE OF DARTMOUTH COLLEGE CASE COMMEMORATIVE STAMP, MONDAY, SEPTEMBER 22, 1969, DARTMOUTH COLLEGE, HANOVER, N.H.

We hear much these days about the communications gap between generations, between races, between faiths, between economic strata.

Deplorably, all of these gaps do, indeed, exist. Yet recent studies have shown that the greatest gap of all lies not between young and old, not between black and white, not

between poor and rich—but between the college-educated and the non-college educated of all ages.

This gap manifests itself—not in open conflict—but in smoldering resentments that threaten to char away the national soul.

There are two revolutions going on in America today. The educated young are revolting against the liberal establishment, and so is the working class. But for dramatically different reasons.

The revolt of the educated young is directed against the sluggishness of the establishment. The revolt of the working class is directed against an establishment they believe has gone much too far, much too fast . . . and against the excesses of the privileged young.

In this context, it is easy to understand just how wide this gap really is, for it spans the outer extremes of the social philosophy spectrum.

The working class revolt lacks the pyrotechnics of the student rebellion, to be true. There are no demonstrations, no confrontations, no violence.

It manifests itself in the quiet election of so-called law and order candidates in Minneapolis, in Denver, in Los Angeles, and in the breakdown of traditional party lines and loyalties in New York City.

There are some awesome implications in all this that the college-educated of our country must begin to appreciate. In the first place, the college-educated are still outnumbered three to one. This fact alone lends substance to an observation by Warren Miller at the recent American Political Science Association Convention.

Miller, a member of the University of Michigan faculty, said he thought it was obvious to any rational politician that there were several times more votes to be gained in 1970 or 1972 by leaning toward George Wallace than there were by leaning in the opposite direction.

Is this what the college-educated want? You know that answer as well as I.

All right, then, what can be done about it? The answer is simple . . . yet extremely complex. The communications gap between the college-educated and the working class must be closed.

Now closing that gap implies a willingness on the part of both sides to reach across the chasm. But to assume that each side will reach as far as the other in an unrealistic assumption.

And this is where the sanctity of contract concept enters the picture.

You and I, all of us who were privileged to have a college education, inherited an implied contractual obligation along with that privilege.

This obligation extends far beyond the material aspects of being your less privileged brother's keeper. It extends far beyond the irony of hundred dollar ski boots tramping Dartmouth halls that are less than five miles away from instances of abject poverty.

It embraces a very special responsibility, a responsibility to understand without condescending, to sympathize without demeaning and to appreciate that the working class is still the very bedrock strength of our society.

In a very real sense, it implies a willingness to heed that legendary Indian who advised us not to judge another man until we have walked in his moccasins.

Above all, it demands a lasting recognition on the likeness of all men.

No one wrote more eloquently of the common man than the late James Agee, and it was he who described every human being as "an incommunicably tender life . . . wounded in every breath, and almost as hardly killed as easily wounded . . . sustaining, for awhile, the enormous assaults of the universe."

For many of today's college students, the assaults of the universe are real or imagined assaults by the establishment upon their individual consciences. The war. Poverty. Racial discrimination. Society's obsession with material gain. Unjust laws.

The exercise of the collective student conscience has prompted many observers to describe this as the finest generation in history, and I have no quarrel with that assessment.

But today I call upon you students to walk in another man's shoes, a less privileged man's shoes, and to view life as it is seen through another man's eyes.

To sharpen the challenge, let me suggest the shoes of a policeman, the classic protagonist in the campus confrontations.

There are many policemen your age, so the transference ought not to be too difficult.

Now, as allegedly educated men, let's begin by rejecting a current popular myth. Donning a badge and a blue uniform does not automatically convert man into angel—nor into beast.

This young policeman is a human being, like you, "wounded in every breath" and "sustaining the enormous assaults of his universe."

More often than not, he sprang from humble origin and takes just pride in what he is. He also takes pride in honoring the American ethic he learned from his father—work hard, stay clean, go to church, be a good husband and father, honor your obligations and aspire to more for your children than was had by you.

The last is important, for it translates into a desire by that young policeman for more education for his children than he had, to give them more opportunities than he had.

So he wants to respect education, because he wants his children to be educated.

But suddenly put him into a situation where a college student his own age, a young man who had far more privileges than he ever had, calls him "Pig!"

Stay in his shoes for one more minute. Imagine that "enormous assault of the universe." Everything he has ever believed in and lived by is degraded by a single epithet.

What happens in that moment to his respect for education and the educated?

Will he listen a little less receptively the next time the students cry out against inequities and injustices?

Will he listen a little more receptively the next time a demagogue tells him how he would handle spoiled rich kids and campus radicals?

So our challenge, then, is to repair the damage and to go that extra step to close the communications gap.

Our challenge is to restore respect for education, to win back the confidence of that policeman and all working men. If we can do that, if we can regain their trust and respect, we can destroy the simplistic appeal of those few demagogues who feed on their frustrations and resentments.

The effort will be doubly rewarding—first in terms of the Nation, second in personal benefit.

We can learn much from the working people of this country. We can draw much from their great reservoir of strength.

So if we choose to take that extra step, to make that extra effort, the result can be mutual enlightenment, mutual enrichment, mutual reinforcement—and the preservation of Daniel Webster's beloved Union.

DETONATION OF NUCLEAR BOMBS

Mr. GRAVEL. Mr. President, I ask unanimous consent to have printed in the RECORD a letter dated September 27, 1969, from me to the President, relating to the detonation of underground nuclear bombs.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

SEPTEMBER 27, 1969.

THE PRESIDENT,
The White House,
Washington, D.C.

DEAR MR. PRESIDENT: The authority for detonation of nuclear bombs has been vested in the Presidency, indicating both the measure of public concern regarding the use of these weapons and the confidence of the American public in a President's judgment to exercise his authority with great discretion.

Since ratification of the Nuclear Test Ban Treaty, all of our atomic explosions have been detonated underground, too comply with the treaty's provisions. It is generally assumed that underground tests neither violate international agreements nor present a threat to life or property.

However, evidence now at hand convinces me that these assumptions are no longer valid. I am convinced that the proposed tests in one of the most tectonically active areas of the world may create dangers for Americans and other residents of the Pacific Rim . . . dangers which no one in authority completely understands.

In recent years the scientific community has expressed increasing concern regarding an information gap between the pronouncement of the AEC and facts developed from experience.

In 1964 the AEC through four of its scientists stated that underground nuclear explosions cannot cause earthquakes. These same assertions have been subsequently circulated by the AEC even in the face of generally accepted data, the product of the "Boxcar" and "Benham" tests that nuclear bombs can and have caused earthquakes. The AEC gave this same old reassurance in testimony to the Joint Committee on Atomic Energy July 19, 1968, two months after the "Boxcar" detonation which caused numerous recorded tremors and earthquakes.

Because of public concern generated as a result of some large Nevada tests, the AEC, working in conjunction with the President's Science Advisory Committee created a special panel to study the safety aspects of underground nuclear testing, headed by Dr. Kenneth Pitzer. It completed its work in November, 1968. That report was publicly released today—nearly a year later—and only because of intense pressure for its release.

What purpose does it serve the AEC to keep secret for eleven months the only objective report on the safety of its activities? This method of managing public opinion is incompatible with our representative form of government.

Dr. Pitzer, a former research director for the AEC and a former member of the President's Science Advisory Committee has expressed concern over the absence of a more substantial public hearing before large underground tests are conducted in Nevada and Alaska. Dr. Pitzer has said that as a result of such hearings "Congressmen, Governors and other responsible officials as well as the interested public can form their own judgment, balance this and any other risks against the need for tests or the extra costs of moving to a non-seismic location."

Let me underscore the seriousness of this matter. The Atomic Energy Commission undertakes all of the scientific and staff work related to our nuclear testing program. It reports in secrecy to the President who must then make judgments regarding the detonation of nuclear bombs.

The only objective panel to look into the sequence of events leading to the present state of our nuclear testing, apparently has raised an urgent warning sign. Yet the panel's report was held secret for almost a year.

The President must base his judgment on informed opinion, but the necessary opinion in this case is completely omitted because there has been no public dialogue.

Public opinion and public discussion have been stifled by secrecy. The process, therefore, that would normally result in an informed public dialogue has not been permitted to work. As Dr. Pitzer said so eloquently earlier this year "The problem is not that the risk is completely ignored, rather it has been examined primarily in closed circles with the effective judgment rendered by officials committed to the test program."

Commonly, in response to this type of argument secrecy is defended as required for national defense purposes. But Dr. Pitzer said "when I was advised to look into this situation, the selection of the Nevada and Alaska test sites, I was struck by the fact that there was no real need for secrecy in discussing this problem. The details of explosive devices were irrelevant. All of the essential information was unclassified, or ought to be."

Mr. President, there is an exceptional concern about the series of tests planned to begin October 2 on Amchitka Island in the Aleutian Chain. The tests will be the most powerful ever attempted by the United States underground. And the location is new and untried. The island lies in the Aleutian arc where earthquakes regularly generate dangerous tidal waves.

The AEC's press release of September 24 demonstrates the reason for its credibility problems. In the press release announcing October 2nd as the date for the test, the AEC says that no radioactivity is *expected* to reach the atmosphere, no radioactivity is *expected* to reach the sea, no serious damage is *expected* to occur to fish and wildlife in the area, ground motion is not *expected* to be considerably smaller in seismic magnitude than the direct shock of the explosion itself.

The AEC says further in its statement that "it is most unlikely that the explosion will trigger an earthquake of magnitude as large or larger than the initial seismic shock." And it goes on to assure us that the predicted seismic magnitude of 6.5 "makes the possibility of damaging water waves very remote."

The Atomic Energy Commission has not been infallible in the past.

At the Nevada test site where no release of radioactivity is expected, at least 10% of the tests unexpectedly leak off the Nevada Test Site. The percentage would be higher if on-site leaks were included. But these are not publicly enumerated. In four consecutive months in 1969 alone at least three tests at the Nevada Test Site have leaked.

The Atomic Energy Commission did not expect radioactivity from the 1965 test on Amchitka Island to leak for hundreds of years. But radioactivity surfaced in at least two small fresh water ponds on Amchitka only a few months after the test.

The AEC did not expect strontium-90 to accumulate in milk.

The AEC did not expect the 800-kiloton blast detonated in January 1968 in central Nevada to rock Salt Lake City and San Francisco as well as Las Vegas.

The AEC did not expect underground nuclear bomb tests to trigger earthquakes. But now it's clear they do.

Mr. President, you are entrusted with the responsibility for determining the size, the nature and the location of nuclear explosions. I strongly urge you, in exercising your responsibility, not to rely exclusively on the Atomic Energy Commission. That agency is committed to the pursuit of this test program.

Based on information it alone has, the AEC has determined that the importance of the test overrides the potential dangers: earthquakes, sea waves, radioactive leakage either into the air or water, our relationships with Pacific Rim nations which have already

expressed their concern. Is it proper that one agency of our government should make such a critical evaluation?

I cannot question the importance of the tests to national security because the purpose of the tests is kept secret. But I would say unless that purpose is absolutely overpowering to our *immediate* national defense, that the risks involved do dictate a decision not to go ahead with these tests at this time.

I urge you, Mr. President, to order a postponement of the October 2 test. I urge you to take the initiative in establishing a public dialogue of informed opinion on the nature of the tests and the extent of the dangers.

This entire question is too important to leave to staff evaluation. You have been entrusted with this responsibility, Mr. President, and I urge you to personally become involved before any further tests take place.

Please reflect on the possibility that hundreds, and perhaps thousands of people could be killed, and many millions of dollars in property damage could occur as a result of your assent to the detonation of a hydrogen bomb on October 2. *Also consider the possible radiation contamination of one of the world's great fisheries.*

Please think of the impact on our international posture and prestige of a violation of the Nuclear Test Ban Treaty. Two of America's closest national friends have expressed their concern. Many members of the Senate have added their names in sponsorship of my resolution asking for a Presidential commission to evaluate our nuclear testing programs independently.

Mr. President, if it is your decision to explode this bomb on October 2, then it is your judgment that the above mentioned risks are worth taking due to the exigencies of our weapons testing program.

I am constrained to say, Mr. President, that in the event of a tragedy you will be held accountable.

Sincerely,

MIKE GRAVEL.

RESTORATION OF BALANCE BETWEEN LABOR AND MANAGEMENT

Mr. FANNIN. Mr. President, I have often mentioned the excessive power which labor unions hold over the economy and have repeatedly stressed the need for legislation to restore some balance between labor and management. In addition, I have introduced proposals to bring about some changes in our labor laws which in my opinion are calculated to better serve the interest of the Nation. In a recent speech before the National Press Club, Mr. Carl M. Halvorson, president of the Associated General Contractors of America, shows just what the power of labor unions has done to our economy. He points out that the wage demands of the unions have become so great and so inflationary that the Federal Government was forced to step in and curtail necessary public works projects in order to slow down the economy. It seems to me that it is a sad situation when such a course must be resorted to instead of getting to the heart of the problem by enacting remedial legislation. This point is well made by Mr. Halvorson and I ask unanimous consent that the text of his speech be printed in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

STATEMENT ON GOVERNMENT-ORDERED CONSTRUCTION CUTBACK BY CARL M. HALVORSON, PRESIDENT, THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, SEPTEMBER 5, 1969, AT THE NATIONAL PRESS CLUB, WASHINGTON, D.C.

It is most unfortunate that power of the building trades unions is so great and their wage demands have become so intolerable that the federal government must step in and curtail necessary public works projects in order to cool the economy. This means that the American public will be denied necessary construction services until some later date.

Rationing construction by use of cutbacks, in a surging expanding society, is self-defeating, because these projects will be built later at sharply increased costs. The answer is to get rid of some of the archaic labor laws which protect the already "overly protected" but powerful building trades unions. But the cutback won't affect the unions who have caused much of the current inflation by their outrageous wage demands. The cutbacks hurt the contractor who needs to schedule his work in an orderly manner, and the public who needs schools, hospitals, and other necessary public works.

We welcome the President's stated objectives of a greatly expanded manpower training and vocational education program. This can be a great help in curing the structural ills of the industry if a pragmatic approach is taken.

We also welcome the creation of a cabinet committee on construction to review the vast range of federal construction activities. In the past, federal stop-and-go tactics have imposed great hardships on the general contractor and have substantially increased the cost of public works.

If this curtailment of construction is to be anything other than an expression of frustration in the face of "union created inflation" in the building industry, additional meaningful and forthright actions are required in the following areas:

Review the validity of federal labor laws which were created in times of unemployment and underemployment in the light of today's full employment economy.

Elimination of current featherbedding practices and the use of skilled workers where unskilled workers could be more economically employed.

Evaluation of a general \$9-\$10 per hour wage already provided for in many existing agreements in this industry and the lateral effects on the manufacturing and service industries and on our competitive posture in world trade.

The government must review the impact of deferred wage increases already structured into existing labor agreements which have been considered too inflationary at this point. Under the Davis-Bacon Act, inclusion of these future rates will greatly increase the cost when these now deferred projects are finally built.

Cutbacks are a reaction to the symptoms of the industry's problems and do not address the causes of those problems. Only congressional action can get to the root cause of inflation—excessive union power. This power has caused over 200 economic work stoppages in the industry this year, averaging 41 days each, 328 million man-hours have been lost. Wage increases are averaging more than 15 per cent per year. In large metropolitan areas, wage increases are averaging nearly \$2000 a year. Unfortunately, the construction unions, by their strikes and wage settlements, have now clinched their position as the "power clique" among American workers. The average hourly wage for construction workers is \$5.80 and recent wage increases will exceed \$10 an hour within two years in many areas.

Correction of inflationary forces in the construction industry will require practical bi-

partisan political solutions if we are to pursue and develop our stated national goals of full employment and an enriched environment. Congressional hearings should be held promptly to fully explore the problem and to devise acceptable solutions.

MESSAGE PRESENTED TO 23D ANNUAL CONVENTION OF NATIONAL ASSOCIATION OF STATE DIRECTORS OF VETERANS' AFFAIRS

Mr. BURDICK. Mr. President, Mr. Lloyd F. Zander, Fargo, N. Dak., past president of the National Association of State Directors of Veterans' Affairs, has just brought to my attention a message presented to their 23d annual convention held in Christiansted, St. Croix, Virgin Islands, on behalf of Gov. Melvin H. Evans. I think the Governor's message is very timely. I ask unanimous consent that it be printed in the RECORD.

There being no objection, the remarks were ordered to be printed in the RECORD, as follows:

REMARKS BY ADMINISTRATOR FOR ST. CROIX ON BEHALF OF THE GOVERNOR OF THE VIRGIN ISLANDS, DELIVERED AT THE 23D ANNUAL CONVENTION OF THE NATIONAL ASSOCIATION OF STATE DIRECTORS OF VETERANS' AFFAIRS, ON SEPTEMBER 20, 1969

Mr. President, Officers of the National Association of State Directors of Veterans Affairs, distinguished guests, ladies and gentlemen:

The Governor of the Virgin Islands, Dr. Melvin H. Evans, has asked me to express to you his profound regret for not being able to present, due to illness. He extends to you a hearty welcome to the Virgin Islands and wishes you a very successful 23d Annual Convention.

He asked me to read the following message, and also to give you some background of our heritage as freedom-loving Americans. Here follows the Governor's message:

"It is with a keen sense of disappointment that I find myself unable to be here with you tonight as I had enthusiastically endorsed this convention being held here from the outset. I had looked forward to being present and participating with you in this special occasion, which means so much to the lives and affairs of so many millions of Americans who have served and are serving their country. Though unable to be present, I am pleased to take this opportunity to have my Administrator for Saint Croix, Mr. Henry E. Rohlsen, convey through this message a few sentiments which I would have liked to express in person, had it been possible.

We, in the Virgin Islands, are proud of our heritage, of fighting for the freedom of man. We fully recognize that to keep freedom one must be ready and willing to die if necessary. We have participated and given our lives in all of the conflicts in which our country has been involved, since we have become a part.

Right now we are participating in Vietnam. Seventeen of our youths have fallen in the fields of Vietnam. We can proudly say that there are no Americans more loyal than Virgin Islanders, no Americans more patriotic, and no area in my knowledge with less subversion.

As an organization serving those in our country, who have given the most and in many cases their all, I salute you and hope that your deliberations here will be productive, but also enjoyable."

Here ends the Governor's message.

I would like at this time to briefly elaborate upon the Governor's message, by telling you a little of our history—of our dedication to freedom in these Virgin Islands.

Let me take you back to the year 1848, when at Fort Frederick, at Frederiksted, St. Croix, the first slaves in the Western Hemisphere and probably the world, were set free, by the abolition of slavery in the Virgin Islands.

The yearning for freedom was causing a state of unrest among the slaves. The planters saw an explosive situation existed and sought aid from the Governor. Against the planters wishes, Governor Von Schoultzen made the courageous decision, contrary to the wishes of the Danish Crown, that freedom of the slaves was mandatory. This was the birth of our freedom which we have cherished since.

We skip many years of our struggle to maintain freedom and we arrive at the year 1917. In this year our Islands were purchased by the United States of America for the sum of \$25,000,000, and we became American citizens. Immediately, we find our men serving in World War I.

We served and died in World War II. We served and died in Korea. We are now serving and dying in Vietnam.

As of today, we have lost 17 of our youth in Vietnam. Our men have given their lives in Vietnam in order that the people of Vietnam may have the right to fully participate in representative government. The United States has denied this same right of American Democracy to the people of the Virgin Islands.

This is not intended to be a complaint. We are prepared to go wherever the United States flag goes, in the defense of freedom and the dignity of mankind.

We are dedicated to freedom and our country and to the proposition as has been said, "Our country may she be fair and just in all her dealings, but our country right or wrong."

Draft dodgers are not numbered among us. Draft card burners are not numbered among us. Subversion has no part in our lives.

As loyal Americans we have shared in the supreme sacrifice demanded to safeguard and keep our liberty and freedom.

Our participation in this has not been a compulsory or token one. At the outbreak of World War II in 1941, it was necessary for us to send a delegation of Virgin Islanders to Washington to lobby and beg Congress to include the Virgin Islands in the Draft. We were draft exempt.

On a population-ratio basis, we have today, twice as many Virgin Islanders serving in the United States Military Services, as you have from the States.

On a population-ratio basis, we have lost twice as many Virgin Islanders in Vietnam as you have lost from the States.

It is very appropriate and it is heartwarming to our Governor and the people of the Virgin Islands that you have chosen the Virgin Islands as the site of your 23d Annual Convention.

Governor Evans and his Administration join you in your dedication of service to those who have served our country. We honor the accomplishments of your 23 years of dedicated service. We pray that your visit with us will be extremely productive and enjoyable. We open wide the door of our Virgin Islands hospitality to you.

THE FIGHT FOR THE PRESIDENT'S MIND

Mr. GRIFFIN. Mr. President, the Washington Post published an article on Sunday, September 28, 1969, about a book soon to be published by a former Under Secretary of the Air Force, Townsend Hoopes.

The book reportedly details the crucial decisions that led to a major change in policy by the Johnson administration regarding the Vietnam war.

I ask unanimous consent that the article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

ACHESON'S ATTACK ON JCS "SHOCKED"
L. B. J., BOOK SAYS
(By Murrey Marder)

Former Secretary of State Dean Acheson "shocked" President Johnson in February-March, 1968, by telling him he was being "led down a garden path" in the Vietnam war by the Joint Chiefs of Staff.

That description of one of the most jolting exchanges in the 1968 struggle over reversing U.S. escalation of the war is given by Townsend Hoopes, Under Secretary of the Air Force from 1967 to early this year.

Many newsmen—and one insider, former Defense Secretary Clark M. Clifford, who was the major catalyst in "The Fight For the President's Mind," as Hoopes calls it—already have written about the extraordinary civilian revolt behind the scenes that year.

But no insider previously has given such detail and such pointed characterizations of the participants' positions. That great internal debate culminated in President Johnson's decision to change the fundamental course of the war by partially halting the bombing of North Vietnam, coupled with the President's stunning announcement that he was simultaneously removing himself from the 1968 presidential race.

Hoopes' account is likely to arouse challenges from those on the "hawk" side of that critical decision. Hoopes himself was not in the top echelon of the clashing principals; he was in the supporting cast behind Clifford's fight to reverse U.S. policy, and he was heavily engaged in planning options for air strategy in the war.

His version of the internal struggle, published in the October issue of *Atlantic Monthly*, is drawn from Hoopes' forthcoming book, "The Limits of Intervention," to be published this month by David McKay.

Hoopes states:

In late February, 1968, when Gen. Earle G. Wheeler, chairman of the Joint Chiefs, submitted a military request for 206,000 more American troops, Acheson told the President: "With all due respect, Mr. President, the Joint Chiefs of Staff don't know what they're talking about."

When "the President replied that was a shocking statement," Acheson answered that if so "perhaps the President ought to be shocked." Acheson told the President two weeks later, after an intensive study, that "he was being led down a garden path by the JCS . . ."

Dean Rusk, then Secretary of State, is described in Hoopes' book, an *Armed Forces Journal* interview reports, as "a major contributor to the national confusion over Vietnam." But Clifford's challenge to existing war policy led Clifford to believe Rusk was "troubled and sincerely anxious to find some way to the negotiating table." Rusk, who "in the summer of 1967" had proposed "a heavily qualified partial (bombing) halt," finally gave "implicit endorsement" to the bombing moratorium that emerged from the drive to de-escalate the war.

Walt W. Rostow, President Johnson's security adviser and a leading "hawk" along with Rusk and Wheeler, made Mr. Johnson "the victim" of the "selective briefings"—the time-honored technique of underlining, within a mass of material, those particular elements that one wishes to draw to the special attention of a busy chief . . ."

Robert S. McNamara, Clifford's predecessor as Defense Secretary, who started as a "hawk" but became progressively disenchanted with the war, "finessed serious debate on basic issues," and sought to "muffle the differences, and thereby avoid a business confrontation within the administration." McNamara, "in

every instance before going to Saigon to "bargain" with the military on manpower, "reached his own conclusion before departing Washington and had meticulously prepared his own position, including a draft of what he would report to the President on his return."

Clifford, as the former Defense Secretary himself already indicated, stunned Mr. Johnson—who expected him to be a firm supporter of the war. "Then, as Clifford later said wryly, 'this Judas appeared,'" when Clifford led the fight to halt escalation of the war. The Johnson-Clifford relationship "grew suddenly formal and cool." In the following summer, when Clifford led the next fight for a total bombing halt, "the President refused to see him alone . . ."

Abe Fortas, then a Supreme Court justice and one of President Johnson's closest confidants, "continued to play the curious role he had assumed on other occasions in the running debate on Vietnam—a spokesman for those private thoughts of Lyndon Johnson (on pursuing the war) that the President did not wish to express directly." Rostow "and Justice Abe Fortas had a major hand" in drafting two thoroughly truculent speeches that Mr. Johnson deliver in mid-March, 1969, in the Midwest while the intense secret war policy debate was under way.

Paul Nitze, deputy secretary of defense, although "basically a hard-liner" on communism as Acheson is, "advised Clifford that he (Nitze) was not in a position to defend the administration's Vietnam policy" in testimony before the Senate Foreign Relations Committee. Nitze offered to resign; Clifford advised him to stay. Hoopes describes Nitze as "a pearl of great price."

Paul Warnke, then assistant secretary of defense for international security affairs, "was to have perhaps more influence on Clifford's change of position than any other single person." Nitze and Warnke at Defense, joined by Phil G. Goulding, assistant secretary for public affairs whose role in the internal debate has not been revealed previously, took a major role in providing Clifford with arguments to contest the military leaders' strategy. They were "supported" by Under Secretary of State Nick deB. Katzenbach (as was previously revealed).

If the military request for 206,000 more men for the Vietnam war—"a 40 per cent increase"—had been approved, it would have caused the defense budget to rise "by \$10 billion in 1969" and would have created "a requirement for about 400,000 more men on active military service," reservists and draftees. "Goulding argued that the shock wave would run through the entire American body politic."

Many portions of other highlights in the Hoopes account previously have been aired in public, but his version adds more detail.

Hoopes wrote that "one of the major ironies" in the course of events that set off the policy challenge was the fact that McNamara, in February, did not accompany Gen. William C. Westmoreland to Saigon. If McNamara had done so, Hoopes speculated, the troop reinforcement figure probably would have been whittled to about 50,000 and the showdown would have been averted.

When Mr. Johnson assigned the military's request for 206,000 troops to a task force headed by Clifford, who had just been confirmed in January, Hoopes said, "As the principals understood it, the assignment from the President was a fairly narrow one—how to give Westmoreland (U.S. commander in South Vietnam) what he said he needed, with acceptable domestic consequences."

"Restow, Wheeler, and Taylor expounded the hard line," said Hoopes, "arguing that the Tet offensive was in reality a new and unexpected opportunity," and they, joined by Rusk and Treasury Secretary Henry Fowler "were strongly for meeting the request and getting on with the war."

Hoopes said Clifford was "uneasy" about the report but "passed (it) along" while

"Nitze, Warnke, Goulding and I were profoundly discouraged." Hoopes said that to him the report "was mindless folly." Then, said Hoopes, as the dismay of these men and others, and the consequences of continuing existing policy, began to have impact on Clifford, "about March 16" the Clifford doubts "crystallized into a firm conviction that the administration's policy in Vietnam was indefensible."

Then Acheson's opposition began to register, Hoopes relates, especially after a two-week inquiry during which Acheson "cross-examined" U.S. experts including Philip Habib of State, George Carver of the Central Intelligence Agency and Maj. Gen. William DuPuy of the staff of the Joint Chiefs.

Next came the turnabout on Vietnam, as previously disclosed, by the so-called "elder statesmen," known as the Senior Advisory Group on Vietnam. There was new shock for the President when men like McGeorge Bundy, former national security adviser to Presidents Kennedy and Johnson; Cyrus Vance, former deputy defense secretary and others added their strong objections in White House meetings on March 25-26.

Meanwhile, as other reports have shown, presidential counselor and speech writer Harry McPherson suddenly thought on the night of March 22, of combining portions of previously mentioned ideas to cut through the impasse. "To McPherson's surprise," Hoopes notes, the President suddenly accepted McPherson's draft proposing halting the bombing of North Vietnam north of the 20th Parallel, "in exchange for assurances that Hanoi would show restraint at the DMZ (demilitarized zone) and would not attack Saigon and other major cities."

Hoopes said that this message was sent to Saigon "with Rusk's implicit endorsement" and "Bunker responded without great enthusiasm, but to the effect that he could live with it."

But the policy struggle continued, Hoopes related, and he, unsure of the outcome, "worked at polishing a letter of resignation" while the President prepared to speak. Hoopes credits Clifford, as do others, with being "the single most powerful and effective catalyst of change," for inducing the President to change his war policy.

ALASKAN COMMUNICATIONS

Mr. GRAVEL. Mr. President, I ask unanimous consent to have printed in the RECORD a letter dated September 26, 1969, from me to the President, relating to the domestic satellite issue, the Alaska satellite requirement, and Alaskan communications generally.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

U.S. SENATE,
Washington, D.C., September 26, 1969.
The PRESIDENT,
The White House
Washington, D.C.

DEAR MR. PRESIDENT: At the moment the White House has several study groups mobilized to grapple with the domestic satellite issue, the Alaska satellite requirement, and Alaskan communications generally.

I would like to bring to your personal attention some existing deficiencies. I hope you will insure that your study groups not overlook appropriate corrective action. It is extremely important that this be done in a timely manner to avoid any agreements within the International Communications Satellite Conference (INTELSAT) which would be detrimental to the United States or to any region of the United States.

The complexity of the issue precludes a detailed presentation in this letter, but a few major elements should be identified. A brief discussion will illustrate their impact

on the issues and on the public's right to finally be blessed with the rewards of its investments in space research.

I feel confident your review will bring you to the conclusion that:

The Communications Satellite Corporation is unmanageable in its present form with industrial competitors on its board of directors.

The Communications Satellite Corporation, as now chartered, cannot serve as an international agent and act simultaneously as a responsive and successful domestic institution.

The United States should assure that the eventual INTELSAT agreement will not impede full and free utilization of satellite technology for domestic regional or domestic national public communications.

The widest public access to educational and public broadcasting is the highest priority in the land for domestic applications of satellite communications.

In reviewing the hearings that led to enactment of the Communications Satellite Act of 1962, the record reveals the difficulty of legislating a new technology about which so little was then known. The main thrust was to instrumentalize American leadership in international application of the new science. Today we can look on the Act with far more expertise.

The Communications Satellite Corporation (COMSAT) has been seriously hindered by foreign governmental interests in lucrative submarine cables and their inflated profits. COMSAT has on its board of directors industrial representatives of competitors who have often litigated in opposition of COMSAT. It is little wonder that public COMSAT stockholders have not enjoyed a return on their investments. Moreover, the American public which paid for the research leading to this science has yet to enjoy continuous domestic benefits.

Yet the United States by its Memorandum of Understanding with India of September 18, 1969, will provide domestic services to that country by 1972 through a NASA satellite. Without quarrelling with the generous and reasonable India project, it is paradoxical that the United States has not been able to cope with her own applications.

The domestic issue has been permitted to stick in a quagmire of competitive, vested interest of network broadcasters and communications carriers. The profit-criteria has dominated the issue through devices of international commitments, technical regulations and other machinations to keep the issue boiling in uncertainty.

This national dispute is impacting disastrously on critical needs of our society for public, cultural telecasting and for scholarly exchanges between our academic institutions. It delays vitally needed solutions for certain regions such as Alaska or our overseas possessions like American Samoa.

I urge you, Mr. President, to offer amendments to the existing law which will provide the organizational structure, independent of foreign interests, to bring domestic satellite communications to the American public.

With kind regards,

Very respectfully,

MIKE GRAVEL.

UNDERGROUND NUCLEAR TESTS

Mr. INOUE. Mr. President, on Monday, September 29, the Committee on Foreign Relations conducted hearings on Senate Joint Resolution 155, introduced by the Senator from Alaska (Mr. GRAVEL), and of which I am a cosponsor. The joint resolution urges that a review be conducted of the international and foreign policy implications of the underground nuclear testing on the island of Amchitka. The first in this test series is

scheduled to be detonated tomorrow, October 2. This morning an editorial published in the New York Times succinctly sets forth, I believe, the position of a number of Senators who spoke at the Foreign Relations Committee hearings.

Last month, I contacted President Nixon and the Atomic Energy Commission to urge that these tests be postponed until an independent inquiry, such as that proposed by Senate Joint Resolution 155, could be conducted. I continue to urge that this action be taken.

I ask unanimous consent that the editorial be printed in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

RISK-TAKING ON AMCHITKA

Despite the combined protests of scientists, conservationists, members of Congress, aroused citizens groups in three Western states and the governments of two friendly neighbors, the Atomic Energy Commission is moving ahead with plans for a one-megaton underground nuclear blast in the Aleutians tomorrow, the first of projected tests to perfect new weapons.

Some scientists fear that the explosion may trigger a very large natural earthquake in the seismologically unstable area and that there may be contamination of air and water. Conservationists are concerned about the ecological impact on Amchitka Island, site for the tests, which is a part of the Aleutian Islands National Wildlife Refuge and a stronghold of the sea otter, a species once near extinction. Alaskans, Californians, Hawaiians, Canadians and Japanese are apprehensive about the danger from quakes and tidal waves.

Congressmen have urged a postponement of the tests until an independent panel of experts can assess the potential damage. But the A.E.C., which does not deny that dangerous side effects are possible, insists that the risks are minimal and worth taking in the interest of national security.

That is a dubious proposition on two counts first, because A.E.C. scientists tend to minimize dangers in order to support their interests in further nuclear development, and second, because the weapons the tests are designed to develop will only accelerate the arms race and thus increase international insecurity.

Supporters of the test program argue that the Russians also are testing new weapons. This, unfortunately, is true, but it does not justify testing in this particularly uncertain area until the dangers are studied more thoroughly and objectively.

At the very least, the tests should be postponed until an independent study of the dangers can be completed and discussed. Better still, the United States should press urgently in talks with Moscow and in the eighteen-nation Disarmament Committee for an agreement to ban all underground nuclear weapons testing, or at least those large-yield tests that can be easily monitored. The Amchitka tests pose unwarranted threats to the immediate safety of people living in the Pacific basin and the long-run security of mankind.

A SALUTE TO GHANA

Mr. MCGEE. Mr. President, yesterday marked a significant event in Ghana, the official return of Ghana to civilian rule after more than 3½ years of military government. The people of Ghana and the first Prime Minister of the second Republic of Ghana, Dr. K. A. Busia, deserve our sincere congratulations and support in their endeavors. It is my

hope that this occasion indicates the tide of armed takeovers that has swept Africa in the last 10 years has reached its peak, and that the events in Ghana will serve as an inspiration for the future.

The smooth and peaceful election of August 29 also deserves our attention, for it was singularly free from any taint of corruption or other irregularities. There can be no doubt that Dr. Busia and his Progress Party have gained a mandate to govern, for they won the elections by a landslide. I think this once again demonstrates the truth of the proposition that the people, given the opportunity, will choose the uncertainties and challenge of democratic self-government before the often proclaimed advantages of the so-called guided democracies or development dictatorships.

But of course it must be realized that no matter how popular or capable the new government may be, Ghana's success will hinge in part upon international cooperation. Specifically it means that we in the West must bend every effort to insure Ghana's prosperity and general well-being by providing a stable and equitable international commodity market, in which Ghana can gain the necessary foreign exchange credits to pay her obligations and finance her development plans.

Recent events in Ghana, then, deserve our best wishes, and I am sure Senators will join me in extending a tribute to the second Republic of Ghana and Prime Minister Busia.

COLUMBUS, OHIO, JOINS IN CALLING FOR ENACTMENT OF URBAN AND RURAL EDUCATION ACT

Mr. MURPHY. Mr. President, Superintendent Harold H. Eibling, of the Columbus, Ohio, public schools, has endorsed enactment of the Urban and Rural Education Act of 1969, S. 2625, which I introduced on July 15.

I ask unanimous consent to have this letter printed in the RECORD.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

COLUMBUS PUBLIC SCHOOLS,
Columbus, Ohio, August 18, 1969.

HON. GEORGE MURPHY,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MURPHY: Thank you for your thoughtfulness in sending me a copy of the bill you recently introduced in Congress.

This Urban and Rural Education Act of 1969 has been studied and read very carefully by members of our professional staff. As we understand it, this bill would amend Title I of the Elementary and Secondary Act of 1965 and proposes to provide substantial increases in funds for certain qualified large cities to meet the educational needs of disadvantaged pupils in the elementary schools.

This additional money would be available to the local education agency without precondition; therefore, we have assumed that it would be possible to develop facilities needed for the approved programs. This bill as you have presented it seems logical and justifiable in terms of the intensified need that can easily be identified in large cities as well as certain rural sections of our great nation.

I would certainly hope that this bill would meet with favor and success in Congress.

Sincerely yours,

HAROLD H. EIBLING,
Superintendent of Schools.

HUMAN RIGHTS HAVE LONG HISTORY AS PROPER SUBJECT MATTER OF TREATIES

Mr. PROXMIRE. Mr. President, as an unequivocal proponent of Senate ratification of the Human Rights Conventions, I have frequently been confronted with the argument that conventions on human rights are not a proper exercise of the treaty-making power.

I contend that there is both abundant historical and legal precedent for U.S. ratification of Human Rights Conventions.

Human rights were very much an integral part of the international treaty process as early as the 17th century. The Treaty of Westphalia, negotiated at the end of the Thirty Years War in 1648, guaranteed for all the Germanies the equality of rights for people of both the Roman Catholic and Protestant faiths.

Later in the same century, the Treaty of Breda saw the extension of freedom and equality to Roman Catholics by Protestant princes.

The Congress of Vienna of 1815 extended the principle of religious freedom and political equality to many cantons of Switzerland and protected the equality of Christian religions in Germany.

Four different treaties and conferences of the 19th century affirmed and reaffirmed the outlawing of slavery. In fact, 105 years ago in 1862, the United States entered a treaty with Great Britain for the immediate suppression and ultimate elimination of the African slave trade.

The treaties concluding World War I— involving Albania, Austria, Bulgaria, Czechoslovakia, Greece, Hungary, Poland, Rumania, Yugoslavia, and Iraq— guaranteed full equality for the citizens of those nations irrespective of birth, nationality, race, or religion.

The United States has both historical and legal precedent for the ratification of Human Rights Conventions.

The United Nations was a further fulfillment rather than an innovating departure from the traditional collective efforts for protecting human rights and insuring human dignity.

The Senate can take a major step toward the full implementation and full realization of human rights for all human beings by ratifying the Conventions on Forced Labor, Genocide, and Political Rights of Women.

TAX REFORM BILL AS IT AFFECTS MUNICIPAL BONDS

Mr. MURPHY. Mr. President, I have been very much concerned with the impact of the Federal tax reform legislation as it affects municipal bonds. The State of California is also greatly concerned and I arranged for Ivy Baker Priest, State treasurer, to appear before the Senate Finance Committee to voice the State's opposition to the tampering of present Federal-State relationships concerning tax-exempt municipal bonds. I

ask unanimous consent that her testimony be printed at the conclusion of my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 1.)

Mr. MURPHY. Mr. President, testimony before the Senate Finance Committee has amply demonstrated that interest rates on debt obligations of State and local governments would increase sharply if the pertinent sections of the Tax Reform Act of 1969 were enacted. Attendant and equally demonstrable effects of such higher interest rates would be correspondingly heavier property taxes and related imposts in those jurisdictions issuing tax-supported bonds as well as increased charges, fees, or tolls for users of water, sewer, electric, highway, bridges, and other facilities financed by revenue or revenue-supported bonds. What has received less emphasis, but is potentially of tantamount or surpassing significance, is the built-in inflationary impact of higher municipal interest rates on the economy of California and the Nation as a whole.

The State of California and its political subdivisions have typically sold more bonds annually in recent years than any State in the Union. Between 1960 and 1968 California bond sales averaged \$1.4 billion yearly, or 13 percent of the total average annual volume. Aggregate State sales for this period amounted to \$12.7 billion, against \$97.6 billion for all State and local governments combined. Future sales in this order of magnitude, or greater, are a virtual certainty in view of the indicated need of and plans for new statewide construction plus improvements or expansion of existing facilities. Authorized but unsold bonds of the State of California, for example, currently total \$1.3 billion, while similar debt of underlying cities, counties, school districts, and other local units is nearly \$3 billion.

It is important to note at this point that, whatever average increase in interest rates is ascribed to the Tax Reform Act, such increase for California will necessarily be more severe. Because our State is the largest and, in absolute terms, the most rapidly growing, there has arisen a proliferation of local units whose present credit status by traditional yardsticks demands a premium on borrowing costs. This is especially true for new agricultural developments in the Central Valley associated with the California water project and expansion residential-industrial ventures in southern California accommodative of the spillover from metropolitan Los Angeles and San Diego.

On August 28, there appeared on the financial page of the Los Angeles Times, an article indicating the difficulties that municipal bonds are already having in California. The article goes on to blame both high interest rates and the tax reform bill for the fact that no bids had been received on the estimated \$20.5 million Venice waterway project. I ask unanimous consent that this article be printed in the RECORD following my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 2.)

Mr. MURPHY. Mr. President, property taxes are the major revenue source of municipal governments. Debt service increases, then, which must result from the tax bill's reform provisions, will consequently be reflected mainly in higher local taxes on land and improvements. It can be shown moreover, that the accrued effects of such higher taxes in California will redound as well to the detriment of the Nation, owing in part to the State's critical role in the U.S. economy.

California for many years has paced the country or ranked highly among the leaders in the value of agricultural output, aerospace production, food and kindred items, transportation equipment, and products derived from or allied with petroleum, lumber, rubber, plastics, and stone, clay, and glass.

Taxes, in agriculture or industry, quite simply are a cost of doing business. Where taxes increase inordinately, thus reducing sharply investment return relative to expenditures, the affected producers may either leave the state or area or pass along the increase to subsequent middlemen or to final consumers. In the first instance the domestic economy of California would suffer. The latter result, however, implying an extrastate transference or multiplication of increased production costs, would be more likely in California because of the general nature of the state's dominant industries— especially agriculture and aerospace. Furthermore, as food items and defense outlays have typically been among the chief culprits in spinning out the inflationary spiral, additional production costs translated into higher prices would have grave economic repercussions.

The effect of higher property taxes on production costs and consumer prices will be felt also to a certain degree in many other industrially important States with substantial prospective borrowing. Whether the individual State or the entire Nation would suffer most in a given instance is, at this juncture, academic. The point is that the suffering is not only destructive but needless.

First. Reducing the value of tax exemption to individuals via the minimum income tax allocation of deductions proposals will yield token revenue benefits to the Federal Government only to inflict lasting damage on the majority of our citizens for the dubious pleasure of pain-ing the rich few.

Second. Permitting State and local governments to issue taxable bonds in exchange for a Federal subsidy would presumably result in offsetting transactions in terms of U.S. Treasury accounts—making it a fiscal nullity, therefore—while at the same time sorely endangering intergovernmental relations, weakening Federal budgetary controls, and tempting the fiscal integrity of local governments by an unlimited license to sell federally backed debt obligations.

Additionally, there are serious legal questions involved in adjudicating the matter of either direct or indirect taxation of municipal interest as well as in the authorized issuance of taxable securities by States and localities. Consequent litigation, inevitably massive and prolonged, will contribute further to the progressively deteriorating condition of

the municipal bond market and the higher interest rates that such deterioration entails.

Third. Similarizing the tax liability of commercial banks relative to both profits and losses on portfolio security transactions, as provided in the act's treatment of bonds held by financial institutions, would not only reduce bank holdings of municipal bonds but also impair the market for U.S. Treasury and Federal agency securities, striking thereby a wasteful blow at each level of government.

Tax equity is a worthy aim. I certainly support the need for tax reform because I believe that the American public carries too heavy a tax burden. Therefore, no one doubts the sincerity of the drafters of the legislation. Yet it is apparent in this instance that motive and dedication have combined to produce a bill whose security provisions will disrupt our capital markets, increase interest rates and taxes, fundamentally alter our governmental system, and damage the economies of the States and Nation.

The duty of the Finance Committee and the Senate then, is clear, gentlemen. The offending provisions of the tax reform bill should be struck, in the interest of our constituents, in the interest of State and local autonomy, and in the interest of our national well-being.

Finally, Mr. President, I ask unanimous consent that a statement by Mr. Joseph Jensen, chairman of the board of directors of the Metropolitan Water District of Southern California be printed in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

STATEMENT OF THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA CONCERNING THE TAX-EXEMPT STATUS OF MUNICIPAL BONDS*

The Metropolitan Water District of Southern California is a public corporation organized under the laws of the state of California to furnish supplemental water at wholesale for municipal and industrial use to cities and other public agencies. The District now serves most of the coastal plain of Southern California. It has a population of more than 10 million living in 121 cities and in various unincorporated areas including the metropolitan areas of Los Angeles, Orange County and San Diego.

Southern California, a semi-desert area, has experienced the greatest influx of people in the world's history during the past three decades in which it has become one of the great urban complexes in the world. This amazing and unprecedented growth placed tremendous pressure on public officials to continue furnishing the most basic commodity for this dynamic and expanding economy, namely, water. The nature distribution of waters in California has never coincided with population and industrial demands, a problem characteristic of most of the southwestern United States. The difficulties of meeting this growth and attempting to plan for the future involved enormous costs and from a practical standpoint could only be accomplished by spending vast amounts of funds requiring long term financing.

* Presented to the Committee on Finance, United States Senate, by Joseph Jensen, Chairman, Board of Directors, September 23, 1969.

In addition to the major water resource works already constructed in Southern California with municipal bonds, the voters of the Metropolitan Water District authorized the sale of \$850,000,000 in general obligation bonds in 1966 as part of a financing package for the construction of \$1,250,000,000 in new works for the distribution of additional water within our service area. These bonds are in addition to the \$1,750,000,000 in bonds authorized for the California State Water Project, the world's largest water project which will meet Southern California's needs until close to the turn of the century. As of this time, Metropolitan has yet to sell \$665,000,000, which are unsold.

These figures quite accurately reflect the enormous costs to state and local governments of financing just one of their essential services in the west under the unprecedented growth pressures experienced since World War II. Today in California, public agencies have over \$2 billion in bonds awaiting sale for the construction or betterment of water supply systems. In most instances, the added flexibility of long-term financing has permitted public agencies to do a more comprehensive and more efficient planning and construction job in the development of their water resources. Piecemeal planning and construction, quite frequently caused by practical financial restrictions, has usually resulted in a poorly balanced use of available resources and in the long run more expensive development.

Section 301 and 302 of the House Tax Reform bill, H.R. 13270, will clearly have an immediate impact on the costs of long-term municipal financing. The far-reaching effect of the minimum income tax and allocation of deductions proposals is unquestioned. Investors, of course, handle their portfolios in large part based on the tax consequences of their decisions and the question is not whether this will increase the cost of issuing municipal bonds but rather how much. The other distinct possibility is that investors will seek other more profitable investments, thus limiting the supply of funds for municipalities and so in effect driving up interest costs as competition between municipal agencies increases in a narrower market.

The other effect of these proposed changes is to undermine the confidence of investors who will not be specifically affected by these amendments but who are afraid that they represent a trend which will eventually include them. They can only view municipalities as an investment with much less certainty of return than that upon which they have come to rely. Their reaction may well be the same, i.e., either they will look elsewhere for investment potential or reflect their concern in the bids they make for these securities. Also, until the constitutional issues raised by some of the proposed amendments are resolved by the courts, investors will be reluctant to consider municipals.

From the standpoint of Metropolitan and other public agencies, these reactions will cost money—a great deal of money—which must be passed on to taxpayers or water users. Metropolitan must sell the \$665,000,000 balance of its current bond authorization to complete its construction program and an increase of one percent in the interest rate of these bonds will result in an added cost of somewhere around \$275,000,000. An increase of 2¼ per cent will result in an increase equivalent to the principal amount.

This added cost to Metropolitan will not be for the investor's benefit. The investor is demanding a higher interest rate to maintain his rate of return in the face of changes in the tax law and the added interest cost to state and local agencies which investors will demand will equal what investors expect they would face in additional federal income tax.

Obviously, we are opposed to the inclusion of interest on municipal bonds in these two

provisions. We do not feel the Federal government's need for additional revenue needs to be at the expense of local taxpayers. The almost minuscule number of individuals who escape a portion of income tax because of ownership of municipal bonds is not adequate reason to impose much higher costs on local government, the most greatly troubled level in our entire government structure today.

The alternatives to the tax-exempt bond which have been proposed in connection with tax reform so far fall into three general groups. The House bill provides for a no-strings-attached subsidy for those public agencies willing to issue fully taxable bonds. The other two have been generally lumped into the "urban bank" approach and some type of guarantee system.

These latter two involve Federal surveillance and regulation of local capital projects in order to obtain the financing offered. We do not agree with this. We do not feel that having to accept Federal approval of our construction programs is an alternative to our reluctance to go into a more costly bond market. Some areas of state and local government need Federal assistance to develop needed programs in accordance with national policy but we feel this should be a conscious decision by Congress to aid in a particular field with established standards and a recognition of need rather than as an only alternative for paying higher interest rates. We do not feel that the Federal government's need for additional funds as stated by the Treasury Department is adequate justification for making local public projects into a Federally supervised program.

The no-strings-attached subsidy provided in the House bill has more merit from the standpoint of local agencies and is more consistent with Treasury's arguments that its objection to tax-exempt bonds is in large part based on loss of revenue. However, we cannot agree with such an approach when it must go hand in hand with a major deterioration of our traditional financing market, leaving as an alternative one which is untried and subject to constant change by future Administrations and Congresses. If the direct subsidy approach, which we believe will prove far more costly than current estimates indicate, proves unacceptable or is altered by Congress at some future time, then state and local agencies are left without recourse as their traditional market will have already been substantially altered or eliminated.

The Metropolitan Water District is opposed to any legislative proposals which will eliminate or curtail the tax-exempt status of municipal bonds, reduce or impair their marketability, increase interest costs or otherwise adversely affect the municipal bond market.

EXHIBIT 1

STATE OF CALIFORNIA VIEWS ON THE TAX REFORM BILL—H.R. 13270

(Presented to the U.S. Senate Finance Committee by the Honorable Ivy Baker Priest, State Treasurer, Sept. 23, 1969)

The State of California, which I have the honor to represent before this Committee, opposes those provisions of H.R. 13270 which, as presently written, would tamper with the existing Federal-State relationship concerning tax-exempt municipal bonds.

We oppose also any changes in charitable trust provisions of tax law which would cause unintended but seriously adverse effects on California's and the entire Nation's educational institutions. Any action which shuts off or diminishes the flow of gift funds to private schools will yield only added burdens to the public tax structure.

It is our contention that H.R. 13270, the so-called tax reform law, would cause far more harm than good in attempting to solve some of the existing inequities. It would

open a Pandora's box of horrors, jeopardizing Federal-State relationships of all kinds and touching off bitter rounds of litigation. For the most part, however, we will restrict our testimony to the proposed taxation of State and Municipal bonds.

From this nation's earliest days these bonds have been considered as tax-exempt without serious question. We have not attempted here to present the full weight of data and expert opinion available to support our views, but instead seek to point out as concisely as possible what we believe would be some of the adverse effects of this proposed legislation.

This committee's goal of tax reform is a most desirable one. However, because California would be so seriously affected we must oppose H.R. 13270 in its present form on the following grounds:

1. We believe the proposal to tax state and local bonds, commonly referred to as "municipals", is unconstitutional, regardless of whether the Federal government subsidizes all or any part of the increased interest costs resulting from state or local issuance of taxable bonds instead of the traditional non-taxable bonds. We believe that it really makes no difference whether the interference is direct or indirect on this point.

2. Federal taxation of municipals will immediately and automatically increase market interest rates to compensate investors for the altered status of such bonds. The inevitable result must be increased state and local taxes to pay for the increased interest costs. The low and middle income taxpayer thus would bear an even larger share of the burden than he now does.

3. Once the principle is breached, there would be no fixed stopping point. Once Congress takes the first step away from tax exemption on municipal bonds, it can always take another step and yet another whenever circumstances make it expedient to do so. Thus, a federal subsidy of the extra interest costs involved in issuing taxable municipals can be withdrawn just as easily as it was first offered.

4. The very fact that Congress has been seriously considering legislation of this type already has had adverse effects upon the bond market. The fears and uncertainties surrounding current proposals to tax these bonds have led to (a) a shrinking of available money supply and demand for investments of this type because many would-be investors shy away entirely from the municipal bond market until congressional intentions solidify, and (b) further increase in interest rates on those municipal bonds which do manage to attract bidders in these unsettled times. It must be recognized that selling prices of stocks and bonds are affected by such intangible factors as investor confidence and optimism, or the lack thereof, fully as much as they are by earning records, credit ratings and the caliber of management. This is as true with municipal bonds as with corporate bonds. Investor buying patterns are influenced very markedly by any threat or suspicion of threats such as presented by current congressional actions toward state and local bonds.

5. Greater dependence upon the Federal government as the source of major public works funding for state and local needs will be the inevitable result of any tampering with the historic status of tax-exempt bonds. If the states and their political subdivisions no longer can sell their bonds without having to pay extremely high interest, or cannot find buyers at all because of federal interference with the orderly marketing processes of the past, then the only other major source of funds for state and local capital outlay projects has to be the Federal government itself. That would be in direct contradiction to current efforts to bring about better working relationships between the national and state

governments and would force the states to rely almost completely on Washington to solve their fiscal problems involving capital outlay projects. I doubt that any of us want that to occur!

6. California, along with other states, finds herself unable to sell general obligation bonds in the normal manner or volume at the present time because inflation has boosted interest rates above the state legal limit—in our case, five percent. Steps are under way to alleviate this situation through referendum in June, 1970, so that, with voter approval, the State's legal limit on interest may rise to seven percent. However, if and when this does occur, the entire matter may already be or soon afterward become moot if, through federal taxation of our bonds, interest rates are forced to remain above even the new ceiling. Administration efforts to curb inflation's effects on the bond market may be nullified if the Congress, through action which we consider most unwise, brings about a condition of permanent fear and uncertainty regarding investments of all types, including municipal bonds.

7. Those who will be most hurt in California if our bonds are made taxable to investors will be the young people now reaching college age who will be denied the new buildings and facilities they need for their education. It will be the youngsters now in school or about to be enrolled in our public school systems who will lack the classrooms they need through 12 years of schooling. It will be the California veterans who depend on funds from the sale of state bonds to provide the loans they deserve for the purchase of farms and homes. It will be the growing millions of people who use and enjoy our state parks and historical sites made possible by bond financing. Perhaps most urgent of all at this point in time, those who will be hurt will be the farmers and cities of California who are depending on the state water project to deliver the surplus waters of the north, as promised, two years from now. All of these groups of people—probably most of our 20 million population—would be adversely affected by the taxation of state and local bonds as proposed under H.R. 13270.

At this point, I would like to present some specifics about California's population, geography, economy and state financing policies these are germane to your understanding of why we believe so strongly that taxation of municipal bonds would be not only undesirable but perhaps even tragic in its effects on California.

FACTS ABOUT CALIFORNIA SCHOOLS AND COLLEGES

According to a researched feature article in the *San Francisco Examiner and Chronicle* for September 7, 1969, approximately six million of a population totaling approximately 20 million were expected to be in California schools this month. That's a school enrollment equal to an entire nation the size of Switzerland. Add to these students some 600,000 school employees and you have more Californians involved in some phase of education than in all other jobs and professions combined. As a state, we spend \$4.5 billion a year to run our schools, about what it costs each year to put men on the moon. We are the most college oriented political entity on earth: Nearly one million of us, 50 out of every 1,000, now attend college, which is half again as many as in New York and three times as many as in Illinois.

Our investment in school property is more than \$17 billion, according to a study by Crocker-Citizens National Bank Economists. The biggest part of our tax dollar goes for education, a large share, of course, paying for the three million youngsters in elementary school and the 1.3 million in high school. We have had to build 150 new classrooms each week to house our growing public school population. We have the largest and most extensive adult education program in the na-

tion; each year 1.8 million adult Californians take courses in some 500 locations around the state. Our extensive junior or community college system at last count totaled some 89 two-year colleges throughout California.

Between 1955-1957, California's population increased 47 percent but at the same time, enrollment in all colleges and universities increased 160 percent and in the state college system 222 percent. The increase in college enrollment in our state has been averaging about 50,000 a year.

These facts and figures are cited to stress that education in California is, indeed, big business. To guarantee good schools for all of its people wherever they happen to live, the state provides its share of school support according to district need. For many years a state program of loan-grants has assisted local school districts with their building needs. These state funds are provided through the sale of bonds authorized by popular vote. In turn, local matching funds also are usually provided through local bond issues.

The University of California has an enrollment of about 100,000 on its nine campuses and the State College system has an enrollment of about 200,000. Buildings for these college and university campuses are financed largely through state general obligation bonds. Any action which would disturb California's ability to sell such bonds, or which would greatly increase the interest which state taxpayers would have to pay on such bonds, can only work to the detriment of higher education in California.

FACTS ON STATE WATER PROJECT

Planner, builder and operator of a \$2.8-\$3 billion project which will transfer surplus waters from Northern California to thirsty lands and cities throughout the state, the State Department of Water Resources, is at a crucial stage of construction in its timetable. Water already is flowing through the aqueduct system as far south as the Tehachapi Mountains, which separate the great San Joaquin Valley from Southern California. Contract deliveries are being made to Northern California, the San Francisco Bay Area and to the San Joaquin Valley. However, getting the rest of the contracted supply through and over the mountains to Southern California by means of the world's greatest pump lift and difficult tunneling across earthquake faults still presents a challenge before the end of the 600-mile water route is reached in 1972. Water is scheduled to reach Los Angeles County in 1971 and nearly to the Mexican border the following year.

Contracts for water service provide that costs of construction, operation and maintenance of the facilities will be paid for by the users, with interest. Until completion of the project, however, the largest proportion of the revenue cannot start flowing back into the State Treasury to meet principal and interest payments on the general obligation bonds which have been issued in series as needed to finance construction. Thus, it is imperative that no unnecessary and controllable factor intervene to disrupt the sale of California water bonds or to cause extra interest charges to be assessed again all contracting parties.

Approximately \$600 million of the initial \$1.75 billion in water bonds remain to be sold to complete the project as presently planned. Taking a long-range look, however, the project will have to be extended to tap new sources of surplus water from California's north coastal rivers, making further bond financing a necessity. It would be an unnecessary burden to carry on the backs of California water users who pay for these projects if the Federal government were to enact tax legislation which would increase the cost of bond financing, as would H.R. 13270 or any other similar bill.

FACTS ABOUT CALIFORNIA'S BOND SELLING PROGRAM

At the end of Fiscal 1968-69, California's bonded indebtedness (general obligation bonds only) totaled \$4.7 billion. Bonds already authorized by the voters but still unissued as of September 1, 1969, totaled \$1.34 billion. The state ranks second only to the United States government itself in the dollar volume of bond sales. Under normal market conditions, our bond sales in recent years have been totaling \$500-600 million per year.

There is a direct link between California's unusually rapid population growth and the need for public works on a large scale. There is no letup in sight. Because the need is so great (the population increase each year being comparable to adding a city of 500,000) bond financing has been the only feasible means of keeping up reasonably well. It is the fastest way to obtain large sums of money for capital outlay beyond the scope of pay-as-you-go financing. It also is a matter of principle and fiscal common sense that long range benefits should be paid for by future beneficiaries and future taxpayers as well as present ones.

California's general obligation bonds are used, for example, to finance capital outlay needs for:

1. *The Cal-Vet Farm and Home Loan Program.* This has been successfully funded for decades in this manner. A total of \$2.285 billion in bonds has been authorized during that period. Ending of the Viet Nam involvement will result in increased requests or for loans from returning veterans.

2. *Public School Construction.* The public school system's building needs are aided by the state through bond sales. State aid is of a loan-grant type, partly repaid with interest. Since 1946 the state has approved applications for approximately \$2 billion in state funds to help in constructing facilities for approximately two million students.

3. *Junior College Construction.* Authorized in 1968, the \$65 million in bonds for this purpose is another type of bonding program in California which is directly affected by national bond market conditions. At the beginning of this year, there were 89 community colleges operated by 69 separate junior college districts. These are required to match state building construction funds. Last November the first series of these bonds was sold; no more have been sold since then because of prevailing high interest rates.

4. *Park, Recreational and Historical Site Facilities.* In 1964, California voters approved a \$150 million bond issue for expanding the State Park System, for local parks and for additions to wildlife conservation board hunting and fishing improvement facilities. In a state of 20 million population, augmented in the summer by visitors numbering in the hundreds of thousands, at least, it has become imperative to provide more parks and recreational facilities. Bonds meet these capital outlay needs.

It should be noted that these have been examples, not an all-inclusive list.

Authorized but unissued state bonds as of September 1, 1969, include: \$600 million for the water project, \$60 million for construction of state buildings, \$80 million for university and state college construction, \$75 million for the state park system, \$275 million for public school system building aid, and \$50 million for junior college construction.

VIEWS ON TAX IMMUNITY UNDER THE CONSTITUTION

The question of tax exemption of municipal bonds may be phrased as follows:

Does the right of states and their political subdivisions to borrow by means of bonds whose interest is exempt from federal taxation stem from the permissiveness of a beneficent central government, or is this right a

part of the very nature of our republic's political partnership?

California contends that Congress by itself cannot abolish by statutory enactment that which has been recognized as a constitutional right by the U.S. Supreme Court and which, therefore, can be changed only by amending the Constitution. This principle has been reiterated by the Supreme Court since adoption of the Sixteenth Amendment (the income tax amendment). Since California's presentation here today is not intended to be a legal brief, we will not set forth the citations in case history which substantiate our position. In our view, they are solidly based.

We contend that the Federal government has no right to tax municipal bonds even indirectly, or by offsetting such taxes through the device of interest subsidy. To extend this point, if the states are to be required to yield their immunity in this matter, the Federal government should reciprocally give up its own immunity, thus opening the way for counter taxation of its bonds by the states. It should work both ways if it is going to be brought into the picture at all. No one would gain by such a chaotic scheme. We merely suggest that a cutting sword usually has two edges.

California contends that any alteration of the principle of reciprocal immunity from taxation could pull down the entire framework of Federal-State relationships and would destroy the principal means open to the states to finance their major capital outlay projects. Once any exception is made to the principle of immunity, immunity no longer exists.

VIEWS ON CHARITABLE CONTRIBUTIONS

The proposed changes in the treatment of charitable contributions suffer from the same weaknesses as those dealing with tax-exempt bonds. The House Ways and Means Committee, in trying to eliminate abuses of present regulations, has proposed changes which, in our opinion, will lessen the flow of charitable contributions.

Although California would not be affected as much as her sister states by such changes because our private institutions carry only about 111 percent of the total enrollment in higher education, we, nevertheless, are concerned about the negative impact that this proposal would have on gifts to private educational institutions. They already are at a competitive disadvantage relative to public institutions. This move to tighten regulations on charitable contributions would heighten that disadvantage at a time when private schools need all the help they can get if they are to remain a viable part of our educational framework.

Every enrollment gain by private institutions lessens the burden which otherwise would fall on our taxpayers. Moreover, we feel that the increased competition between public and private schools helps to achieve our goal of excellence in higher education.

For these reasons, therefore, only summarized here, the State of California respectfully urges the Congress to take no action in developing a tax reform bill which would tend to diminish the ability and willingness of contributors to support private colleges as in the past.

NEWS CLIPS: LOCAL COMMENTS ON AND EFFECTS OF TAXING MUNICIPAL BONDS

Sacramento Bee, September 4, 1969

From a story describing a meeting of the Los Rios Junior College District Board of Education:

"The board rescinded its action of two weeks earlier, awarding a \$1,875,400 contract to Harbison and Mahoney for construction of the American River College Library. Assistant Superintendent George Rice explained the district had been unable, in the current confused bond market, to sell the bonds

needed to finance the project. Rice said proposals in Congress, to remove the tax-exempt status from such bonds and to alter the capital gains tax, have combined with high interest rates to dry up the bond market..."

Sacramento Bee, September 5, 1969

From a story reporting proceedings of a Sacramento City Council Meeting:

"Christensen (City Councilman Walter Christensen, former Mayor) warned that 'the Community Center is down the drain' if Congress passes a tax reform bill which eliminates or reduces the tax-free status of municipal bonds, thus making some or all interest on such bonds taxable to investors."

San Francisco Chronicle, September 4, 1969
Financial Editor Sidney P. Allen's Column

"Bonds go begging, more than ever.

"Here's fresh evidence of it. The Bond Buyer Index, the major gauge for the tax-exempt bond sector, topped six percent 10 days ago, and currently has shot up to a new high record at 6.26 per cent.

"Right here at home, to be more specific, the California Municipal Bond Index of Glore Forgan, William R. Staats, Inc. topped 6.21 per cent. That, too, was up a whopping 21-100ths in one week.

"Obviously investor confusion and fear regarding possible tax reform that might eliminate or reduce state and municipal bond tax exemption has knocked the final prop from that sector. It's a punch to the solar-plexis (sic) for California..."

Sacramento Bee, September 7, 1969

"Davis—failure of the Davis Joint Unified School District to market \$330,000 in bonds has prompted a warning that taxpayers may face increased taxes because of the current condition of the money market.

"The Davis Bonds, authorized by voters in 1963, failed to attract any bidders at the legal maximum interest rate of 5 per cent.

"The business manager of Davis District, Melvin H. Keuhnhold, said, 'the money market is like a yo-yo at the moment. No one's buying bonds—particularly at the interest rate of 5 per cent.'

"One of the major problems is the tax reform discussions in Washington. At present, interest earnings on bonds are tax-free. But the indications are that they will become taxable—with taxes being applied retroactively. So no one is buying."

"The Davis Bonds were to finance a new gymnasium and shop at Holmes Junior High School, a project considered 'top priority' by officials."

EXHIBIT 2

[From the Los Angeles Times, Aug. 28, 1969]

VENICE WATERWAYS PLAN FAILS TO DRAW BIDDERS—PUBLIC WORKS LEADER BLAMES PROBLEM ON TIGHT MONEY MARKET

(By Seymour Beubis)

VENICE—The future of the ambitious Venice Waterways Development Project is again uncertain because no bids were received Wednesday on the estimated \$20.5 million project.

Howard W. Campbell, president of the Board of Public Works, said he is still determined to go ahead with the project "because we owe it to the property owners to make this project a reality. We will continue to work with corporations who have the potential to do the work."

Chappel admitted, however, that as of now he has no idea when the Venice Canal Project might be started.

PROJECT TO BE READVERTISED

According to Chappel, the project will be readvertised for bids after the board and its staff make a complete re-evaluation of the conditions in the construction industry and in the money markets which affect the fi-

nancing of the project and particularly the issuance and sale of assessment bonds for the work.

Chappell said the lack of bidders may be attributed to the unsettled conditions in the municipal bond market because of certain provisions in a tax reform bill now pending before the Congress, and the general conditions in the financial world, especially the high prime interest rate of 8½%.

Additionally, according to Chappell, the turbulent state of the construction industry which has been plagued lately with strikes, spiraling wages and rising costs of materials and equipment and other items which go into a huge construction project, may have contributed to the lack of bids.

BIDS SURPASSING ESTIMATES

"We have not been able to get bids on several projects lately and the ones we are getting on other projects are way over our estimates for the work," said Chappell.

Chappell said 70 firms took out a set of plans for the project, a prerequisite to making a bid.

He said that he felt that the lack of bids had nothing at all to do with the estimated cost of the project.

Opponents of the project have maintained that the project would cost well over the \$20.5 million estimate and even more than \$30 million.

The tax reform bill before Congress, according to Chappell, could substantially affect the issuance and sale of Venice Canal Project bonds because it would impose a tax on state and municipal bonds, even outstanding issues, and it would remove a portion of the current tax exemption on a graduated scale up to 50%, now enjoyed by such bondholders.

The Venice Canal project, the largest assessment act project in the history of the city, would be financed by the issuance of general assessment bonds.

Chappell said he was disappointed that no bids were received, but would have felt far worse if the bids had been higher than that estimated by the board.

"From all the contractors we have spoken to, no one complained about the estimated cost of the project," said Chappell.

The council approved the project earlier this year after stormy hearings. But the council stipulated that if the lowest bid was in excess of 5% of the city engineer's estimated cost, it be reported to the council for its approval before award of a contract.

Two vocal groups opposed the project when it came before the council.

One group was composed of property owners on the periphery of the proposed canal project who claimed they were being assessed for a project that would not be of benefit to them.

A second anti-canal faction was made up of Venice residents, predominantly renters, who felt the project would result in an increase in their rent and thus force them away from the area.

The council was close to rejecting the project or at least postponing action on it because of the periphery property owners, when the Board of Public Works decided to eliminate 136 of these periphery properties from the 1,110 parcels in the canal assessment district.

Prices of property in the Venice Canal area have soared since the project was first announced several years ago.

Plans call for the canals to be linked with the Marina del Rey entrance channel.

The proposed canal system would run from the marina entrance to approximately Venice Blvd. and Pacific Ave.

Besides improvements to the canals, new pedestrian and vehicle bridges, boardwalks and improvements to the buildings along the waterways are planned.

The average cost of the project to prop-

erty owners with canal frontage is estimated at \$15,000 and some go as high as \$21,000 excluding interest. The assessments can be paid over 20 years.

THE SECOND REPUBLIC OF GHANA

Mr. BROOKE. Mr. President, great moments in history should not go unremarked.

Such a moment is occurring today in the independent African Republic of Ghana where, for the first time in the history of that troubled continent, a military government is voluntarily turning control of the state over to popularly and peacefully elected civilian authorities.

Ghana has always been in the vanguard of African politics. Successive constitutions drafted by the British governors in the immediate postwar years gradually widened the base of suffrage among the black population, until by 1951 all adults in the colony participated in the selection of a Legislative Assembly. Then, for the first time, an African became Leader of Government Business, a title which was changed to Prime Minister in 1952.

One more general election was held under British supervision in 1956. On March 6, 1957, with much fanfare and acclaim, Ghana became the first black African state to achieve its independence from colonial rule. The ceremony was attended by dignitaries from all over the world, including then Vice President Richard Nixon. Hopes were high. With resolution on the part of its leaders and people, coupled with continued British support and growing Western investment in Ghana's rich cocoa and aluminum resources, the country was well launched on the way to stability and economic and political development.

Problems intervened, as we all know. Ghana's leaders tried too hard and too fast to modernize, westernize, and put their country on a par with other independent states. As the first independent black African state, Ghana assumed a leading role in the independence movement then sweeping across Africa, and in the process the country's own domestic needs were often overlooked. Monuments were built to the greatness of Ghana, to its past and to its future. Convention halls and coliseums proclaimed a commitment to Pan-African unity. But in the meantime Ghana's people often lived in poverty, the prices for its export crops declined, and an increasingly entrenched bureaucracy found ways to use positions of authority to further personal gain.

Finally, on February 24, 1966, the National Liberation Council, made up of army and policy officers overthrew the government of former President Nkrumah and assumed the reigns of the Government of the Republic of Ghana. Critics of this action were many, but once the abuses of the previous administration became more generally known, the criticism assumed a more far-reaching quality. From many quarters it was alleged that African states were not ready for democracy, that the parliamentary experiment had failed, that tribalism would divide the countries of Africa for many decades to come. A succession of

military coups in other states seemed to bear out these depressing expectations. In the process, the assertions of the National Liberation Council that they had no political ambitions and were anxious to turn power back to a duly constituted civilian government, were lost, ignored or discounted.

But the NLC went ahead with its plans.

The National Liberation Council appointed a Constitutional Commission to draft a new constitution for Ghana, and promised that they would relinquish their powers to any government formed in accordance with the new constitution and as a result of genuinely free and fair elections conducted under the Constitution.

It is gratifying to note that after a Constituent Assembly had re-examined the proposals of the Constitutional Commission for a Constitution for Ghana, the Constituent Assembly was empowered to enact and promulgate a new Constitution for the Second Republic of Ghana on August 22, 1969.

General elections were held throughout Ghana on August 29, 1969 to elect members of the National Assembly and a new Civilian Government. The Progress Party led by Dr. Kofi Abrefa Busia won the elections by a landslide after 4 months of vigorous campaigning and a peaceful, smooth, and uneventful election.

Dr. K. A. Busia was duly sworn in as the Prime Minister of Ghana immediately after the election, and has subsequently chosen his 17-member Cabinet.

For the time being, a three-man Presidential Commission composed of members of the National Liberation Council—Brig. A. A. Afrifa, Chairman of the NLC, Police Chief J. W. K. Harlley, and Maj. Gen. A. K. Ocran, Chief of the Defense Staff—will exercise the responsibilities of President. This arrangement will last for a maximum of 3 years, may be terminated at any time by a vote of the Legislative Assembly, and is designed to provide continuity during the transition period.

The new government inherits from the NLC a stable political climate. The Constitution created under its supervision provides for a popularly elected government and insures the fundamental freedoms, among these life, liberty, and security of the individual, freedom of conscience, freedom of expression, freedom of assembly and association. In addition the NLC, during its 3-year tenure, was able to salvage the economy of Ghana and to lay sound foundations for the further improvement and expansion of trade and economic development.

The new Prime Minister of Ghana, Dr. K. A. Busia, in a nationwide broadcast in Ghana, appealed to all his fellow Ghanaians to start the Second Republic in the spirit of forgiveness and tolerance. He said:

This time, we shall succeed in building a truly democratic country in which we shall be proud and happy to live.

The Second Republic of Ghana has thus been born. The young and virile

people of this country are determined to succeed. In the same way that Ghana, in 1957, blazed the trail that has since ushered the majority of African countries into independent nationhood, so once again the precedent Ghana has set in orderly transition to civilian administration may well pave the way and provide the lead for similar political achievements throughout all of Africa.

In their determination to develop lasting democratic institutions, the people of Ghana deserve our good will, our understanding, and our support. Today, when their new civilian government is duly sworn in, I extend to them my deepest commendation and best wishes.

WATER QUALITY

Mr. NELSON. Mr. President, it is becoming increasingly evident that our Nation will be facing a severe crisis if something is not done to insure adequate water pollution control measures. Unless we can take steps to improve and upgrade water treatment and distribution systems, we will be slowly poisoning our people to death. It is becoming more difficult with each year to give the American people the right to clean drinking water because of the incredible volume of waste materials being discharged into the water. This problem can only be met by a careful surveillance and persistent vigilance on our part.

Two articles recently published in Milwaukee papers point up the need for effective water pollution control standards to protect our drinking water. I ask unanimous consent that they be printed in the RECORD.

There being no objection, the articles were ordered to be printed in the RECORD, as follows:

[From the Milwaukee (Wis.) Sentinel, Sept. 6, 1969]

ALARM SOUNDED ON U.S. DRINKING WATER

WASHINGTON, D.C.—The nation's drinking water systems are plagued with serious sanitary deficiencies that are likely to get worse, preliminary findings of a federal study show.

By one department of health, education and welfare estimate, about eight million people are drinking from municipal water systems that contain more bacteria than recommended under federal standards, according to Charles G. Johnson, Jr., administrator of consumer protection and environmental health service.

"Some serious sanitary deficiencies exist in the nation's community water supplies, deficiencies that are likely to get worse before they get better," Johnson said in a speech this week to the American Waterworks association.

Johnson said his estimates come from preliminary results of a department study of water systems in eight metropolitan areas and the state of Vermont, as well as individual water supplies in the southeast.

The metropolitan areas are New York city, including Long Island; Charleston, W. Va.; Charleston, S.C.; Cincinnati, Ohio; Kansas City, Mo.; New Orleans, La.; Pueblo, Colo.; and the San Bernardino-Riverside-Ontario area of California. The 20 million people in these areas are served by 1,100 different community water systems.

Johnson cited these "disturbing" preliminary findings:

In two areas where the survey is complete, 63% of the water systems are deficient by public health service standards, but not necessarily unsafe.

About 9% of samples from seven areas "evidence contamination in the distribution systems."

31% of Vermont's water systems are contaminated by bacteria.

Some metropolitan sections are still served by "decidedly unsanitary" tank truck delivery of water.

Many water system operators skip or neglect routine control procedures.

Plant workers are often negligent in their handling of chlorine used for water disinfection.

Pesticide traces were found in 76 of 79 samples tested.

The incidence of bacterial contamination in such individual water supplies as cisterns, wells and springs ranges from 40 to 80%.

Johnson says the United States has over the years maintained a safe and reliable water supply system that all but wiped out such water borne diseases as typhoid fever, amoebic dysentery and bacterial dysentery.

"However, I am convinced," he said, "that we have reached a point when we can no longer afford to take the security and safety of public water supplies for granted."

[From the Milwaukee (Wis.) Journal, Sept. 14, 1969]

100 WATER SYSTEMS LISTED BELOW U.S. STANDARDS

(By Laurence C. Eklund)

WASHINGTON, D.C.—A new government report reveals that more than a hundred of the nation's water systems that supply interstate travelers do not fully measure up to federal standards.

Water from these systems are not now considered unsafe, but their classification by the public health service as "provisionally approved" is in effect a warning to state and local officials that the water supply in question must be improved to retain government certification.

The list of provisionally approved systems was obtained after Charles C. Johnson, Jr., administrator of the consumer protection and environmental health service, had warned in a speech that there was reason for serious concern about community water supplies.

The water systems of La Crosse and Manitowoc in Wisconsin are included in the list.

The environmental control administration's bureau of water hygiene at Cincinnati, Ohio, advised The Milwaukee Journal, however, that La Crosse had just been removed from the list on the basis of a recent inspection, and is now classified as approved.

The bureau of water hygiene said La Crosse, which had been on the provisional list for "quite a while," needed some new equipment, that iron and manganese in its water supply exceeded recommendations and that not enough bacteriological samples were being taken.

In effect, while the La Crosse water was safe, the surveillance of its system needed to be corrected, according to the bureau.

It was explained that Manitowoc was on the provisionally approved list because it had not collected enough bacteriological samples for the state laboratory of hygiene in Madison.

Six Illinois water systems are on the provisional list. They are Beardstown, Bedford Park and Franklin Park (Chicago supply); Hartford, Lemont and Rosemont.

Major water systems listed as provisionally approved as of July 28 are Nome, Alaska; Pueblo, Colo.; Miami Beach, Augusta, Ga.; Worcester, Mass.; Missoula, Mont.; Jersey City and Newark, N.J.; Buffalo, N.Y.; Charleston, S.C.; Charleston, W. Va.; and Chattanooga, Memphis and Nashville, Tenn.

The public health service has jurisdiction over municipal and private water supplies involving interstate commerce.

In that capacity it makes monthly checks of 720 supplies, including those in cities like

Milwaukee, that are used by interstate carriers—busses, planes, trains and boats. This covers water used in transit or for passengers in terminals, for either drinking or cooking. These sources serve two million travelers daily as well as 82 million residents in the local communities.

The schedule for making necessary improvements is individually determined for each of the water supplies on the provisionally approved list by the state health department and the bureau of water hygiene.

While none of the 720 supplies is now on the forbidden list, 38% of those on the provisionally approved list have failed to meet requirements on bacterial count for a month or longer.

But even if a supply should be rejected, the government could effectively bar its use only on vehicles in interstate commerce.

As administrator of the newly beefed up consumer protection agency in the Department of Health, Education, and Welfare, Johnson fears the drinking water problem is growing in seriousness with every year that passes.

The problem of providing water fit for human consumption becomes more difficult, he said, as the waste products of the great megalopolis complexes "continue to be dumped into the water, spewed into the air and even pumped into the ground."

Reporting on a current survey of water supplies in rural areas, Johnson said:

"Initial results of bacteriological analysis on more than 700 samples indicate verified coliform contamination of about 40% of the water supplies, of which 40% is fecal coliform."

Coliforms are bacteria used as an index in testing purity.

Drinking water for more than 50 million Americans is supplied from individual wells, springs, rainwater catchments (cisterns) or unprotected surface sources.

Johnson warned that if Americans must wait for epidemiological studies of human illness to convince them of the hazards of polluted water, it may well be too late to upgrade water treatment and distribution systems.

FEDERAL CITY COLLEGE

Mr. SPONG. Mr. President, Tuesday I was notified by Commissioner of Education James E. Allen, Jr., that the Department of Health, Education, and Welfare will propose an amendment to the fiscal 1970 HEW appropriations bill to provide the much needed \$7,241,000 land grant endowment for Federal City College. This assurance from the administration is gratifying.

The purpose of the endowment fund is twofold: half of the interest will be used to support "community outreach" programs operated by the college to promote education in nutrition, child care and development, and consumer protection—programs which go directly to the problems of the inner city and contribute to their long-term alleviation. The other half of the interest derived from the fund will be used in mechanical arts and environmental science programs which provide the kind of training needed by so many District citizens to become productive, job-holding members of the community.

The funds for this endowment were dropped from the 1969 supplemental appropriations bill. I led a successful effort on the Senate floor to restore part of that money, but House and Senate conferees were unable to agree on an amount and the item again was dropped.

Subsequently, I received assurances from representatives of the Office of Education that an effort would be made to have the funds added to the 1970 budget. However, the administration failed to make a formal request of the House Appropriations Subcommittee and gave no indication it would make such a request of the Senate subcommittee. This has been the sad history of efforts to extend the valuable programs to be financed from this endowment.

I believe this latest assurance from the Commissioner of Education puts the administration firmly on record in support of the Federal City College endowment and clears the way for congressional action. At this time, I ask that copies of my letter to Commissioner Allen and his reply be printed in the RECORD.

There being no objection, the letters were ordered to be printed in the RECORD, as follows:

AUGUST 4, 1969.

Dr. JAMES E. ALLEN, Jr.,
Commissioner of Education, Department of Health, Education, and Welfare, Washington, D.C.

DEAR DR. ALLEN: I am writing to express my concern over the Office of Education's deplorable lack of leadership in obtaining the land grant endowment for Federal City College.

Having reviewed the hearing record, I can understand why the Senate subcommittee deleted the request from the FY 1969 Supplemental Appropriations bill. There is little evidence in the testimony that the witnesses knew anything at all about the program. I can only regard the performance as inexcusable.

In point of fact, the extension services which would be supported in part by this money have been among the most successful undertakings of the college. Half of the interest from the endowment would support a variety of "community outreach" programs including education in nutrition, child care and development and consumer protection. The other half would be used to support mechanical arts and environmental science programs at Washington Technical Institute.

When I brought the facts to the attention of the Senate, I was successful in having some money restored to the bill. Unfortunately, the conferees were unable to agree on the amount to be allowed, and the item was dropped. However, I understood from your office that an effort would be made to have the funds added to the FY 1970 budget and that there was reason to believe the request would receive a sympathetic hearing before the appropriations subcommittees.

It was with some dismay, therefore, that I learned that the Office of Education made no formal request of the House subcommittee, which has now completed its work, nor, apparently, does it plan to make a formal request of the Senate subcommittee.

I want to make clear my interest in this matter. First, as a member of the Senate District of Columbia Committee and chairman of its Subcommittee on Health, Education, Welfare and Safety, I feel a responsibility to District residents who have no representation in Congress. Second, I know from my own research into the problems of hunger, the tremendous value of nutrition education programs and of the particular need for them in the District.

For these reasons, I was willing to take the lead in having the funds restored to the Supplemental Appropriations bill and I will support fully any new effort in behalf of the endowment program. But leadership must be exercised by the Office of Education in support of its own programs if they are to have a chance of passage.

Congress has designated Federal City College a land grant institution and by virtue of that status it is entitled to receive the benefits enjoyed by other land grant schools. If the Office of Education has changed its position in this regard, I would appreciate being so advised. If not, I would like your assurances that the Office will make a formal request of the Senate Appropriations Subcommittee to include the endowment in the FY 1970 budget so that these valuable extension services can be continued and expanded.

I look forward to your early reply.

Sincerely,

WILLIAM B. SPONG, Jr.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, OFFICE OF EDUCATION,

Washington, D.C., Sept. 29, 1969.

HON. WILLIAM B. SPONG, Jr.,
U.S. Senate,
Washington, D.C.

DEAR SENATOR SPONG: I apologize for the delay but I am pleased that I can make an affirmative response to your letter of August 4 concerning the endowment fund for the Federal City College.

I have been informed that the Department will submit an amendment to the 1970 Appropriations Bill to the Senate Appropriations Committee calling for the inclusion of \$7,241,000 for the endowment fund.

I wholeheartedly agree with you concerning the importance of the programs to be supported by the proceeds from this fund and I am very pleased that the Department has decided to request its inclusion in the 1970 Appropriations Act. I would also like to express our gratitude to you for the strenuous efforts you have made in behalf of the Federal City College in the past and your promise of future support.

Sincerely,

JAMES E. ALLEN, Jr.,
Assistant Secretary for Education and
U.S. Commissioner of Education.

WITHDRAWAL OF TROOPS FROM THAILAND

Mr. PERCY. Mr. President, the announcement that 6,000 U.S. Air Force and Army men will be withdrawn from Thailand during the next 10 months is good news. This agreement reflects the excellent working relationship between the Governments of the United States and Thailand, while making it clear that the Nixon administration is continuing to reduce American military commitments in Asia.

When I was in Bangkok recently, I conferred on these questions with the distinguished Foreign Minister of Thailand, Mr. Thanat Khoman, who said without equivocation that the Thai Government does not want or need U.S. forces in defense of Thailand, and that Thailand allows substantial U.S. forces on its soil, 98 percent of whom are there only in support of the war effort in Vietnam and only 2 percent of whom are engaged in training activities for the Thai forces.

The foreign minister impressed me with his determination that Thailand will provide her own manpower resources for the defense of her own country.

There has been much discussion of the 1965 U.S.-Thailand contingency military plan; the foreign minister said he did not consider the project a treaty, nor even an agreement as that term is generally used. It binds neither government

to any commitment of any kind without the expressed and subsequent concurrence of each government. He said this project was only a plan, and no more than this, subject to modification and change by either party, as circumstances may warrant. I clearly understood from Foreign Minister Thanat that the plan could not be implemented or activated without further consultation and the expressed approval of both governments.

The first step has now been taken in reducing U.S. forces in Thailand actively engaged in connection with the war in Vietnam. I would hope that a subsequent, larger withdrawal would be considered by both governments as early as is deemed appropriate. With fewer bombing missions to be flown from Thailand to Vietnam, with gradual U.S. disengagement from Vietnam, and with the considerable strength of the Thai forces and the growing strength of forces of South Vietnam, it seems to me that more Americans could be withdrawn from Thailand, consistent with the expressed policy of both Thailand and the United States. An "over presence" of American military forces in a justly proud, independent and strong friend such as Thailand can only endanger future relations.

One reason I have for great hope for the future of Asia and in the strength of non-Communist nations in Asia is the emergence of the hard-headed, capable, intelligent leadership represented in such men as Thanat Khoman. He is greatly admired by many Americans who know him, both for his personal qualities and for his dedication to the independence and strength of his country.

THE HAYNSWORTH NOMINATION

Mr. BROOKE, Mr. President, I have today sent the following letter to the President:

The PRESIDENT,
White House,
Washington, D.C.

DEAR MR. PRESIDENT: Because of my respect for you and my own responsibility to be fully objective, I have so far refrained from expressing my views on Judge Haynsworth's nomination to the Supreme Court. The time is now at hand when I shall have to do so and I wanted to tell you of my deep distress in the matter and of my decision.

My review of Judge Haynsworth's record convinces me that his treatment of civil rights issues is not in keeping with the historic movement toward equal justice for every American citizen. Combined with some of the Judge's business activities, which have created the appearance of conflict with his judicial duties, this consideration raises grave questions about the wisdom of confirmation: Is Judge Haynsworth the man to restore the nation's confidence in the utter integrity of the Supreme Court? And is Judge Haynsworth the man to maintain the faith of that vast majority of fair-minded Americans, not to mention the disillusioned minority, who look to the Court as the indispensable instrument of equal justice under law?

The widespread discontent with his nomination shows, I believe, that he is not. As I know you appreciate, the Court's unique position in our national life demands not only that its members be good men but that our people believe them to be good men. Without wishing to do an injustice to Judge Haynsworth, I do not believe he meets the latter test.

A sizeable and growing number of Republican Senators, together with a large number of Democrats, have indicated to me their inclination to oppose the nomination. If this nomination is put to the Senate, it will be extremely embarrassing to those of us who face a great conflict between our principles and our sense of obligation to you. It may well be that there will be sufficient votes to deny Judge Haynsworth confirmation.

Under the circumstances I profoundly hope you will re-consider your decision not to withdraw the nomination. Rather than see the Senate enter another long and embittering debate on such a vital matter, with many of us obliged to voice strong criticism and others prepared to offer only the most grudging acceptance, I honestly believe that the interests of justice would best be served by such a withdrawal.

If there is a consensus in the Senate at the moment, I think it is the view that Judge Haynsworth is not the distinguished jurist whom the country expected to be nominated. In responding to this spreading conviction, I believe you would be taking the wisest course for all concerned.

I pray that you will be able to give this difficult recommendation full and favorable consideration.

With best personal regards, I am,
Sincerely your,

EDWARD W. BROOKE.

THE PESTICIDE PERIL—LIX

Mr. NELSON. Mr. President, an outstanding national leader in the effort to improve the controls on the use of persistent pesticides, Ralph A. MacMullan, director of the Michigan State Department of Natural Resources, has written a very fine article outlining the issue and the position of his department on pesticide use.

Mr. MacMullan, whose State recently prohibited the use of DDT, begins his article very optimistically:

As I review pesticide events of the past year I am greatly encouraged. My confidence is restored that in the not too distant future we will see the hard pesticides become unnecessary, unwanted, and virtually abandoned. There have been gains and losses, of course, but progress has been solid and gratifying.

However, after reporting on the gains and losses, Mr. MacMullan makes it very clear that there is still "a long way to go," and sets forth a list of steps which must be implemented immediately, including pesticide tolerances in water, monitoring of pesticide pollution, tight enforcement of pesticide regulations and the development of safer, less persistent pesticides.

I ask unanimous consent that Mr. MacMullan's article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

WHERE WE STAND

As I review pesticide events of the past year I am greatly encouraged. My confidence is restored that in the not too distant future we will see the hard pesticides become unnecessary, unwanted, and virtually abandoned. There have been gains and losses, of course, but progress has been solid and gratifying. A year ago in the pages of this magazine I stated my alarm over environmental pollution by persistent insecticides. This has been amplified and echoed by con-

servationists in this state and across the nation. I now restate my concern and report to you significant happenings of this momentous year.

Let me first outline events that set the stage and discuss some basic concerns that bear directly on the matter. The entire pesticide matter flared up in the fall of 1967 when, to curb an outbreak of Japanese beetles in southwestern Michigan near Lake Michigan, a proposal was made to apply nearly 3 tons of dieldrin. The proponents were totally within their legal authority, and felt that this was in the best interest of the people of Michigan. However, we felt that there were safer ways to get at the problem, and we opposed the spray program. Further, the Environmental Defense Fund, a team of dedicated, concerned scientists retained by Michigan citizens, took the matter to court and at the same time brought action against 56 Michigan municipalities that used DDT to control Dutch elm disease.

The dieldrin court action, although unsuccessful, stalled the application of dieldrin until too late in the fall, and the area was not treated. However, the DDT suit remained alive, and during the next few months 53 out of 56 cities stipulated to the Court that they would drop plans to use DDT against the elm bark beetle that carries Dutch elm disease, if they could be relieved from suit.

Unfortunately, the entire dieldrin affair brought two state agencies into an eyeball to eyeball encounter. The whole matter was very important, however, because both agencies had the best interests of the people of Michigan at heart. Naturally we felt the broader viewpoint of concern for the entire environment was proper, wherein the other folks were "after the beetle" to protect the immediate, local interest of home owner and fruit grower, and to prevent spread of the beetle to other production areas.

To resolve this, our Governor appointed a three-man Pesticide Advisory Panel—an entomologist from one state university, and ecologist from another university, and an industrial entomologist who is also a naturalist. They advised that an application of dieldrin in the fall of 1968 would be the lesser of two evils, the other being uncontrolled application by private interests. The Environmental Defense Fund again took the matter into court, this time in Wisconsin, but the case was remanded to Michigan, where it met the same fate as in 1967. So an application of 3 tons of dieldrin and 7½ tons of chlordane on 4,600 acres was made in the fall of 1968. The entire affair has been very complex and there is no need to detail here the parade of legal processes and chains of evidence that were involved.

More important is why this encounter occurred. Use of pesticides was the immediate issue. But the real reason was that man's technology has caught up with, or worse, has passed his ability to harness, understand, or use it intelligently. Here are some of the salient points as I view them.

We, as conservationists, see two major obstacles facing the world. One, we will have more and more people to the point of desperation. Two, the environmental pollution that all of us have created and will continue to create promises to stifle our very existence. The natural pollutants, from carbon dioxide to coliform bacteria, and the durable by-products of our exploding technology—persistent insecticides, radioactive wastes, aluminum food and beverage cans, and a host of other long-lasting wastes—are haunting us right now—today!

As a conservationist, I will not attempt here to discuss Obstacle Number One, except to recognize that it exists, is critical, and is vital. Any married couple with two or more children has already added to the problem. Obstacle Number Two is a direct result of Obstacle Number One, and it is to the problem of the alteration and degradation of our

total environment that we conservationists can and must address ourselves.

Pesticides used in Michigan bear directly on this world problem of environmental waste. Simply, we define a pesticide as a chemical used to kill anything you don't want—weeds, rough fish, fungi and mold, insects, rats, and sea lampreys. I have no quarrel with use of most pesticides. My main concern here is insecticides, the bug killers, and not all of them—only a few.

We clearly recognize the tremendous value of pesticides to our health, our comfort and our prosperity—to food production, to industry, and the home. We can live without pesticides, but not as well. We are concerned for the most part with only a few of the insecticides, the persistent chlorinated hydrocarbons—those that persist in the environment, spread rapidly over the earth, and later become concentrated in the tissues of living things, the effects of which are just now beginning to be detected and understood.

Let me share with you one experience that we have had recently in Michigan. It involves persistent insecticides, and it involves a big chunk of our real estate. Michigan is blessed with lots of "fresh water" and I quote those last two words. Our waters are not as inherently productive as the oceans, but they are worth a lot to us.

We have more shoreline than any other of the "lower 48" states and more fresh water within our boundaries than any other state. Waters from one-third of the total land area of four states drain into Lake Michigan. The Lake itself measures 22,000 square miles with 1,600 miles of shoreline, and is nearly 1,000 feet deep. About 80 percent of the shoreline has potential for outdoor recreation and the variation in habitat makes the lake inherently capable of supporting a wide range of aquatic life. It is significant as both a sport and commercial fishery. Lake Michigan is also a principal source of drinking water—1.5 billion gallons daily. Industry uses another 4¼ billion gallons. It is a major international seaway.

Lake Michigan lies off to the side of the main stream of water flow through the Great Lakes, like an appendix. Water circulates within the lake, but discharges very little out through the Straits of Mackinac—about one percent of the total lake volume per year. This means that any stable, persistent substance that finds its way into that lake is going to be there for a long, long time. And that is just what has been occurring with certain persistent, chlorinated hydrocarbon insecticides.

What happens when these toxic substances—virtually insoluble in water—begin to accumulate? Recent findings show that DDT was the most probable cause of the death of nearly one million coho salmon fry hatched in state fish hatcheries from eggs taken from Lake Michigan salmon. Many Lake Michigan fish now have DDT levels up to 10 parts per million, plus dieldrin in the range of 0.25 parts per million. The U.S. Food and Drug Administration permits 7 parts per million of DDT in beef and pork, and considers 0.3 parts per million of dieldrin as an "actionable level" a level at which the meat is seized and destroyed.

Where have these pesticides come from? Within the Lake Michigan watershed, including Chicago and Milwaukee—two of the major metropolitan areas of the Middle West—live 6 to 7 million people. Along its shores is one of the major fruit-growing regions of the nation with its accompanying spray schedules. In the northern part of the Lake Michigan basin lie extensive publicly-owned and industrial forests—spraying here, too. Certainly, over the past two decades, many hundreds of tons of DDT have been released in the watershed from a wide variety of sources, as far as a hundred miles from the lake, right down to the shore itself.

Cities and parks with their Dutch elm disease and mosquito control programs, state, national and industrial forests, homes and backyards, farms and orchards, spray remnants dumped down the drain or in the creek—all have contributed. Dieldrin undoubtedly came from a narrower range of sources—somewhat more recently—from farms and orchards, homes and backyards, and even from woolen moth-proofing plants.

Runoff from city and farm and forest finds its way downriver or out of the atmosphere. Dust storms and rain add their share of DDT from points west and from global circulation. Regardless of the source of the DDT, once it reaches the lake, much of it is going to stay there, and this has been going on for the past 20 years.

GREAT LAKES IN DANGER

The Lake Michigan situation is only an example—a big, easy-to-recognize example of environmental contamination. Large bodies of water store these pesticides. Tiny organisms pick up the chemicals and store them. Larger organisms eat the little fellows who in turn are eaten by larger critters until top members of the aquatic food chain—fish-eating birds—store vast quantities of the stuff in their fat. Fish and other aquatic animals take DDT and dieldrin directly from the water passing over their gills. The lowly clam can concentrate DDT 70,000 times greater than his water environment.

The effects of this storing-up of pesticides in animals from smallest to largest is not completely known, but gaps are beginning to be filled in. Man, for the first time in his history, has chemicals at his disposal that can completely alter his own food chain. By wiping out certain insects or minute sea-creatures he removes link after link in the very delicately balanced chain of life on which he depends. The complexities of the whole food chain are involved, they are subtle, and they are real. Enough is known now about the persistent pesticides DDT and dieldrin, to name two, to know that they affect the reproductive cycle of certain animal species. I have already mentioned that DDT was the most probable cause of the loss of close to one million coho salmon fry raised from Lake Michigan nurtured eggs. The DDT in those fish was picked up in Lake Michigan. DDT fed experimentally to falcons and ducks significantly affects reproduction—either by reducing hatchability of eggs or survival of young, or causing thinner egg shells, abnormal behavior, and egg breakage. This could well explain the disappearance of the peregrine falcon from the entire eastern United States and western Europe, and the recent decline of the osprey and our national bird, the bald eagle.

We know that the pink shrimp, the same as used for shrimp cocktail, can be killed by four-tenths of one part per billion of DDT after two days exposure. One part per billion is the same as one ounce of chocolate syrup in one thousand railroad tank cars of milk, and that's mighty weak chocolate milk.

It would be nice if we could prove beyond a shadow of a doubt how DDT directly affected man. But these effects are indirect, we think, and subtle. Effects on lower level organisms are better known, but even here the story is not completely clear. Nevertheless, there is enough evidence for us to be greatly concerned and to start bringing the unnecessary and widespread use of these persistent chemicals to a halt. Keep in mind, though, that these specific pesticides are only one of the many environmental pollutants that are of growing concern to all of us.

OUR POSITION IS CLEAR

Our position on pesticide use can be simply stated. There have been some misunderstandings of this position, but it is one I have always held and which has not deviated from the philosophy and policy adopted by the Michigan Conservation Commission as long ago as March, 1966, for use of pesticides on lands we administer:

1. When chemical control is necessary one should use only the most selective chemicals, in the smallest effective dosage, with the safest carriers.

2. Where possible, cultural or biological controls should be used in preference to chemical control.

3. Where proper alternatives are available, the persistent insecticides should never be used.

4. Where alternative methods of control do not exist, the harm to the total environment from persistent pesticides should be carefully weighed against the calculated harm of the pest before the application is made.

5. When persistent insecticides must be used they should be used under as carefully controlled conditions as possible at the time of year when the environmental conditions will make their use the least harmful.

6. No opportunity should be overlooked to bring pressures to bear which will result in the eventual abandonment of persistent chlorinated hydrocarbon insecticides.

We are encouraged because we see progress on one big point—the general public is beginning to be interested and concerned and that's the first step toward acceptance and action. Go to any farm and garden store or department store in Michigan in the spring, and you'll see people reading pesticide labels carefully, although it is a problem for anyone with bifocals to read tiny black type on a green label background.

DDT has been dropped from Michigan State University recommendations for Dutch elm disease control in Michigan. Most cities no longer will use this chemical for that purpose. DDT is no longer registered by the Department of Agriculture for mosquito control. No commercial pesticide applicator can use DDT for this purpose and retain his license.

For the first time in Michigan history a governor has recognized pesticide pollution as a serious problem. His pesticide advisory panel has recommended decreasing use of persistent insecticides, increasing research and monitoring, tightening up of pesticide regulations, and setting up a pesticide review or control body at the state level.

Our Legislature has considered the pesticide situation serious enough to set up a 10-man joint Senate-House committee to review use of pesticides by everyone.

In Wisconsin, concerned conservationists, aided by the Environmental Defense Fund, are battling to show scientifically and legally, that DDT is a pollutant in the waters of that state—a much-needed precedent.

The pesticide committee of the federal-state water pollution enforcement conference for Lake Michigan has recommended establishment of tolerable residue levels of DDT and dieldrin in Lake Michigan fish at levels so low that they can be achieved only by virtually banning the use of these chemicals in the Lake Michigan watershed. It also recommends that state pesticide regulatory authorities and an interstate pesticide coordination committee be set up.

People are concerned. At a hearing in the Legislature last spring on a pesticide control bill there were as many in attendance as we often see at a hearing on deer herd management—and that is really something.

This concern about pesticides is only part of a feeling that many people are having—and expressing—of the need for a cleaner environment. People are seeking solutions to the problems of a technology-ridden world.

Foresters, farmers, and horticulturists have made great strides toward elimination or restricted use of persistent insecticides. They would instead lean more and more on short-lived but effective chemicals, and on other control methods. We are happy about this.

WHAT CAN BE DONE?

But we have a long way to go. Federal and state agencies, and the universities, still recommend some persistent chemicals even

though they recognize and also recommend safer alternatives to control the same bugs. We'd be somewhat happier if their publications would point out differences between pesticides when there is a choice. This ought to be done and done quickly. Out of date publications should be discarded or revised.

Some chemical companies still recommend DDT and its family of hard or persistent pesticides, without reservation. Oh sure, they urge caution. Beware of getting poisoned! But what about environmental poisoning—less dramatic but perhaps just as important to the survival of the race of man. To read some of those ads, you'd think their products were as safe as talcum powder.

We urge action on several points.

We urge a hard look at these deficiencies.

We urge all agencies and all segments of the universities to take a look at these pesticides and to show concern for the entire environment—not just their own restricted "area."

We urge that pesticide tolerances be included more firmly in interstate and intrastate water quality standards.

We urge a stepped-up educational program to bring this concern to the public.

We urge a national inventory of the sources of pesticide pollution and a monitoring of these sources.

We urge tight enforcement of present and future pesticide laws and regulations.

We urge accelerated research to document the direct and indirect effects of pesticides, and to develop safer pest control methods—for the individual, the public, and the world.

We urge a regional approach to pesticide problems to accommodate the many problems found in different but related locales.

A recent approved four-state agreement between natural resource agencies of Illinois, Indiana, Wisconsin, and Michigan was designed to halt the flow of persistent pesticides into Lake Michigan. This agreement is a model that we hope will stimulate similar action in other regions of the country. We also hope to broaden its effectiveness by bringing the executive offices and agriculture departments of these states into the effort.

We will work to identify and correct, in its earliest stages, environmental contamination by pesticides.

We will work to develop and improve the ecological conscience in all of us, and we will work toward the day when government at all levels will be more of a trustee of natural resources, rather than a referee between the many users competing for a resource.

All of us are growing exceedingly weary of being buried in the filth and waste spawned by our technological society. We like this way of life, and we all use it, day in and day out. But if sanity is to remain a part of our life, we must root out and eliminate sources of environmental pollution. Short of this, man has no hope of surviving on this planet.

TWENTY YEARS OF TYRANNY

Mr. FANNIN, Mr. President, today marks the 20th anniversary of the accession of Mao Tse-tung and the Chinese Communists to power on mainland China. What has been the result of these 20 years of tyranny?

The distinguished Committee of One Million—which is ably served by the membership of our minority leader, the Senator from Pennsylvania (Mr. SCOTT)—has put forth an excellent booklet upon the advent of this anniversary. The booklet deals with the political, military, and economic progress of Communist China within the past 20 years. The foreword is written by Dr. Walter H. Judd, a former Member of the House of Representatives and one of the most widely recognized authorities on China.

Dr. Judd notes that Mao has used every stratagem and intrigue available to a tyrant—including terror and murder—to remain in power. He has apparently been propped up once again to wave at the Peking Communist parade as duly reported in the press. It is perhaps significant that so much speculation is rampant in the world about the state of Mao's health. There is a great deal of speculation also about the state of mainland China.

This book, goes a long way toward providing factual answers to that speculation.

The inevitable conclusion from this prestigious publication by this much respected committee is that Communist China itself is being propped up and continues to totter on the brink of civil uprising and economic failure. It is symptomatic to note that China must export opium in order to get the foreign exchange with which to buy wheat for her starving millions.

There are those who argue we must recognize Red China, because it is a fact. These counselors give little heed to the fact that the Red Chinese regime cannot be considered representative of the Chinese people by any stretch of the imagination—yet we hear no great outcry from the critics for free elections in Red China. Where are the howls of indignation and the moans over the fact that Red China has not allowed a free election in the past two decades and her borders remain closed to Western newsmen who would like to report conditions inside China as they really exist.

Mr. President, I ask unanimous consent that the portion of this booklet which I find most interesting to me in connection with my work here in the Senate—the detailing of Communist China's economic record, by John F. Lewis—be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

COMMUNIST CHINA'S ECONOMIC RECORD
(By John F. Lewis)

(NOTE.—John F. Lewis is associate editor of the American Security Council's Washington Report and producer of the Council's national radio program, "Washington Report of the Air." Mr. Lewis has served as chairman, Freedom of Information Committee of the National Association of Radio-TV News Directors; Radio-TV advisor to the Secretary of Agriculture in 1960; correspondent for the Associated Press and Radio-TV news director for Hearst stations in Baltimore, Md. Mr. Lewis was born in China, where his parents were missionaries, and has traveled extensively throughout Asia.)

"How to handle the relationship between politics and economics and between revolution and production after the seizure of political power by the proletariat is an important question of whether or not to uphold the dictatorship of the proletariat, really take the socialist road and undertake genuine socialist economic construction." (Opening to Editorial, *Peking Review*, July 25, 1969.)

Two decades after the Chinese Communists finished the subversion and conquest of the China mainland and installed Mao Tse-tung in full power in Peking, Red China's agricultural base and industrial plant may be in worse shape than at any time since October 1, 1949.

Since four-fifths of the population of

Communist China is engaged in agriculture or enterprises solely related to agriculture, the failure of the mainland economy today must lie in the agricultural sector. Furthermore, since the basic genius of the Chinese farmer, in producing historically remarkable harvests with limited resources in land or equipment, presumably remains unchanged, the only realistic explanations for the agricultural failure must lie in the realm of either the weather or government policies. Over the twenty year period, the weather has not been that bad!

Communism penetrated and ultimately swept over the Chinese people under the banner of "agrarian reform" and Mao himself was presented to the world by his admirers, East and West, as "the agrarian reformer" who would lead China's masses into a "peasant's paradise," as contrasted to Lenin's and Stalin's "worker's paradise" in Russia.

When Mao Tse-tung finally grabbed the reins of power in Peking, he had a right to assume that things would get better because they could not have been worse.

DYNASTY TO DEMOCRACY TO DICTATORSHIP

The fall of 1949 closed out a century of dislocation and misery for the Chinese people. Unfortunately and tragically, it launched a new era under Communism. In the previous 100 years, China had been torn between the decadence of the dying Ch'ing Dynasty of the Manchus and the exploitation of its port cities by the Western powers; between a truly democratic revolution led by Sun Yat-sen and Chiang Kai-shek and an era of warlords and bandits which stifled the new republic's efforts to achieve unity; and, finally, between Japan's full-scale invasion and attempted occupation of the country and Communist efforts to double-cross and ultimately destroy the legitimate, elected government.

In a very real sense, conditions improved almost overnight when the Reds completed their victory. What helped was Korea.

In June, 1950, the Seventh Chinese Communist Party Central Committee agreed to impose Mao's so-called agrarian reform program for three years. It was not put into force, however, because Mao had suddenly embroiled his mainland armies in the Korean War on the side of the North Korean Communist elements. While Peking authorities nervously directed their attention to the Yalu River boundary in North Korea, the Chinese peasant masses were temporarily freed from war, pestilence and the Communist bureaucracy. Agricultural production improved rapidly. Had he not been so wedded to his "reform" concepts and had he left the peasants alone for a few years, Mao might not have experienced the disasters that were to follow.

Once the situation in Korea was stabilized, the honeymoon between Mao's regime and the peasantry came to an abrupt halt.

In 1951-52, having won a stalemate in Korea, Mao cracked down at home, launched a purge against many of his own Communist cadres and began the systematic liquidation of an estimated five million farmers unwilling to relinquish their land and labor to total state control.

In 1953, Peking imposed its first five-year plan to develop heavy industry (with the advice and technological know-how of the Soviet Union) by taxing the peasants "through a unitary purchasing and marketing program for grains and cotton piece goods."¹

By 1956, enough opposition to Mao's policies had been generated in what remained of the private sector of the business and in-

¹ *Handbook of Chinese Communist Affairs*, published by the Institute of Political Research, Taipei, Taiwan, Republic of China (1968).

dustrial community to lead him to seize all such property, collectivize agriculture and establish complete Communist Party domination of the political-economic life of cities, towns and villages.

At this point in time, a most significant but little recognized achievement occurred which the Chinese Communists, even today, seemingly do not comprehend. Peking's agricultural record-keeping finally caught up with reality and Peking did not know it. They did not know it because they had not realized the records they inherited and used after 1949 were unreal.

As indicated earlier, China had lived under the most chaotic conditions for nearly a century. Except for very brief periods when Chiang Kai-shek and the Kuomintang Party of Sun Yat-sen could devote their energies to organizational and administrative details in trying to bring order to the Chinese Republic through the 1920's and early '30's, the only record keeping was handled at the provincial level. In many of the provinces, tax-collecting was carried out—frequently in Mafia-shakedown style—by warlords and bandit chiefs. Since most of the population of the provinces were peasants, taxes thus collected were based on land-holdings and per farm production. But when the source of taxation is poor to begin with, the warlords and bandits—for all their greed—recognized that levies must be kept at a minimum or else there would have been bankruptcy, rebellion or both among the populace.

Consequently, the amount of land in cultivation and the annual production was purposely falsified, generally by mutual consent between peasant taxpayers and warlord-bandit tax collectors. As the Communists marched to power following World War Two, the only records they could scrape together for the day when they achieved total control were, more often than not, such misleading records as cited.

On the basis of these records, Mao's bureaucrats built their estimates of the acreages under cultivation and the output per acre. Without bothering to ask why, the statisticians of the Chinese Communist regime by 1956 (who now were keeping fairly accurate records for the entire country), found cultivated acreage and production per acre impressively outstripping all their original estimates.

For major crops—such as rice, millet and beans—the actual output per acre was twice as much as estimated. In the case of some vegetables, nuts and fruits, production was three to five times above the projections of Mao's agricultural economists. Only livestock, decimated by the ravages of war, dropped behind. Obviously—for a Communist bureaucrat—the simple answer was Mao's brilliant system of agrarian reform.

Mao's aides were elated. They had been nervously watching the growing unrest among many of Red China's intellectuals, as well as the now deprived but still surviving business and land-owning community. Even Peking had been one of the world's shocked witnesses to the Polish and Hungarian uprisings which exposed some of the horrors of the Communist nightmare.

With food production now a success story, Mao chose in 1957 to launch the Hundred Flowers campaign, offering critics of his administration the opportunity to step forward and show him where he had erred. So much criticism resulted that the Communists—and Mao in particular—quickly reversed themselves and executed, imprisoned or exiled all who had revealed their dissent.

THE GREAT LEAP FORWARD

Still misreading the fact that the now accurate and up-to-date agricultural production records of 1956-57 were not so much greater than Peking's five-year plan estimates because of Mao's agrarian policies, but only because they had caught up with reality,

the Chinese Communists determined in 1957-58 to commit the nation to a "ta-yueh," or Great Leap Forward. Mao said, in effect, if we could do so well in the first five-year plan, we can double our goals in the second five years.

As result, the "three red banners" campaign was promulgated: (1) the Great Leap Forward (industrial and farm production), (2) development of the people's rural communes and (3) the so-called "general line of socialist construction" which would be designed to bring complete communization to China's cities virtually overnight—a dream even Marx, Engels and Lenin never thought possible for any country dedicated to the pursuit of Communism.

Moscow politely urged Peking, during the International Party conference in the Soviet capital in 1957, to drop its plans for too-hasty communization of urban industrial areas.

It was then that the two governments for the first time publicly aired deep-seated disagreements over procedures and tactics. (The goliaths of Communism have never disagreed over ultimate objectives of imposing their system on the world—only on the ways to accomplish that end.)

Months later, in early 1958, the Kremlin called on Mao to drop his rural communes campaign. Mao refused. He gambled everything on them.

H. F. Schurmann, Associate Professor of Sociology and History at the University of California (Berkeley, Calif.) wrote in 1961:

"The communes provided the framework for the revolution in agriculture. There is no evidence that the Central Committee specifically planned the form that they should take, but the concept of enlarged agricultural units was essentially in line with an earlier, though only fragmentary, policy of 'combining cooperatives' (ping-sheh), and the organizational changes just described laid the groundwork for their formation.

"They developed as integrated economic units, and with the establishment of commune industries, commune banking facilities, commune schools and hospitals, and commune militia, they tended in many respects to become 'little nations' (a term actually used to describe them at one time). Thus, on the national scale, they represented an extreme in the process of functional decentralization. But within the communes themselves rigorous centralization prevailed.

"The commune party committees acquired enormous power to manipulate the members: one of the basic features was a centralized system of labor allocation in which commune members were organized in work teams and brigades and assigned wherever their services were required."²

By persisting in the commune effort over Moscow's protest, Mao so angered the Soviet Union that the Kremlin withdrew all of its technicians and specialists from mainland China, abruptly cut off all further financial and material assistance to Peking and took other steps which virtually crippled the Chinese Communist economy for years to come.

Mao fought back angrily with both propaganda and deeds. He stepped up efforts to push food production now that land belonged to the communes rather than to individual farmers. He initiated a nationwide attempt at birth control to bring the already bloated population imbalance more into line.

Mao decided to industrialize the peasant masses. Every backyard was to become a steelworks. With the most primitive means imaginable—brick hearths, old pot-iron stoves with straw and dung for fuel—and with bits and pieces of patchwork equipment stripped from established factories and

steel plants, the peasants were called upon to produce the impossible.

The steel the backyards would turn out, said Mao Tse-tung, would be China's answer to the Soviet Union and to critics throughout the non-Communist world. Peasant sweat and dedication to Mao's "Thought" would replace Russian technological know-how and modern equipment. Communist China would show the less fortunate peoples of the developing world that a poor nation with lots of poor people could accomplish miracles in the 20th Century.

THE GREAT LEAP—BACKWARD

Mao plunged ahead and China took a Great Leap—backward!

Peasants resented and resisted the communes. Industrial plant managers saw the nation's resources and some of their own equipment being frittered away on the backyard steel scheme. Agricultural and industrial output slumped. There was famine in the land for nearly three years (1958-61). Consumer goods, always in pitifully short supply, virtually disappeared from retail shelves in all but a few major port cities and Peking in 1959-60. A catastrophe was in the making when the Chinese Communist Party leadership gathered at Lushan in August of 1959. Instead of reviewing a decade of progress under their red banners, they saw a shambles.

Forces loyal to President Liu Shao-chi were in a take-charge position because Liu had been the principal opponent of the Great Leap and communes program. Liu had argued at length against the backyard steel campaign. Liu proposed a modernization of agriculture and a return to incentives, such as land ownership to promote increased production. Liu was ready in 1956 to commit Red China to the purchase of small tractors and other suitable farm machinery to make Chinese agriculture more efficient. Mao said the tractors would come only when the country was able to manufacture them—not import them.

(Today, incidentally, Communist China has its own tractors and, when properly serviced, they reportedly work fairly well. The difficulty is that only about 20 percent of an estimated recent-vintage 40,000 tractors are believed to be operable at any one time because of parts shortages, improper maintenance and restricted fuel distribution.)

Mao did not lose his titles and basic prerogatives. But he did lose decision-making authority in the Communist hierarchy. Liu abandoned promotion of the communes, called off the backyard steel program and sought to restore farmers disrupted by the commune chaos to their home soil in order to rebuild China's agricultural base. Most of Mao's most extreme collectivization policies—now so demonstrably a failure—were discarded.

In the early 1960's, the Communist Chinese economy began making a comeback. Foreign trade expanded. The Canton and lesser trade fairs attracted customers not only from Southeast Asia, but also from other more promising purchasing areas such as Australia, New Zealand, Japan and most of Western Europe.

None of the specific figures are considered to be reliable, but Hong Kong estimates indicate Red China's exports perhaps quadrupled—in terms of non-food items—between 1961 and 1964. They had to. In that same period, Mao's Great Leap had so depleted food supplies that he committed an estimated \$200 million worth of Peking's gold reserves to purchase wheat from Australia and Canada. In 1965-66, Peking used much of its accumulated \$300 million in foreign exchange reserves to buy gold bullion on the London, Paris and Swiss markets to replace the gold spent in wheat purchases.

Once the wheat began to flow, Liu's ad-

visers showed capitalist business acumen. Peking began selling its rice on world markets to a larger degree, while using their wheat purchases as the staple substitute. There was, in fact, a kind of "let them eat wheat" campaign in Red China to persuade the traditional rice-eating masses of Chinese they should use less rice and like it. Wheat cereals and wheat bread have now been introduced to millions of Chinese as something to be preferred over rice. Why?

The unit price in world markets for rice is better than that for wheat. If you sell rice and buy wheat, you can make a profit. Peking has done just that—exporting high-value rice (the staff of life to a majority of the world's population) while importing relatively cheaper wheat which is the mainstay of more affluent Western societies.

During this same period, Red China was trying to demonstrate to the Communist world that it was still a convincing rival to Moscow for revolutionary leadership. It made important contributions of food, manpower and some military equipment to North Vietnam to support the war against South Vietnam. It promoted guerrilla warfare in Africa and Latin America. It extended questionable amounts of aid to some countries in the developing world to expand both influence and subversion.

THE RED GUARD

All of this added to the pressures on Peking inside Communist China. Through quiet "palace" intrigues and plotting, Mao was able (backed by Defense Minister Lin Piao and significant elements of the Army) to announce in November, 1965, that he would lead a Great Proletarian Cultural Revolution.

It did not become quite clear until June of 1966, when he organized the so-called Red Guards, largely consisting of disenchanting or under-employed young people, just what he had in mind. The entire concept caught Liu and the Communist Party organization men off guard.

Mao's most loyal adherent, Chou En-lai, swung back to support him. Lin Piao arranged for his people to control the nation's propaganda machinery in Mao's interests. Liu was a prisoner in his own headquarters as Mao, with reckless abandon, invited the disgruntled, the illiterate and the irresponsible youth of mainland China to engage in a wild, undisciplined spree. With Mao's hearty approval, the Red Guards shut down the schools, emasculated many of the symbols of China's art, literature and ethics, and vented their wrath on the politicians under Liu, who had demoted Mao.

It got out of hand, as one might suspect.

In the first place, Liu and his followers—most of them old-line Communists with a good deal of experience in the traditional techniques of intra-Party in-fighting—fought back. In the second place, Mao's chief supporter, Lin Piao, controlled significant elements of the military, but not all of it by any means. In the third place, the economy went to pieces once again. In the fourth place, the Red Guards had no real loyalties. Being both young and unrestrained, they began splintering into rival organizations—some anti-Mao and others even anti-Communist!

Through 1966-67, anarchy ruled China. Peasants hoarded what food they could, causing critical shortages in the major cities. Responsible workers walked off their jobs in disgust. The railroads—mainland China's principal communications system—stopped running for weeks at a time. Factories occupied by Red Guards ceased functioning. Riots and demonstrations disrupted government machinery at every level, made a mockery of civil authority and terrified the majority.

The military had to move. In the first months of 1968, Mao reluctantly acknowledged that the Great Cultural Revolution was so far out of hand, the dislocations to

² *The Problems of Communism*, "Peking's Recognition of Crisis," published by USIS, Sept.-Oct., 1961.

day-to-day life so great, and the opposition to his regime so widespread, that he ordered Lin Piao—his Defense Minister and designated heir—to turn the full weight of the People's Liberation Army against the Red Guards, against anti-Maoists, against revisionists or anti-Communist elements, against workers and peasants who resisted Peking's orders and against students and intellectuals who refused to accept Mao's "Thoughts" as gospel.

In taking this drastic step, Mao was admitting to the Chinese people that, like his Great Leap of the previous decade, his Cultural Revolution had failed.

Lin Piao's army commanders exacted a heavy price for their continued loyalty. Many of the regional and provincial commanders assumed a role not unlike that of the warlords of the 1920's and early 1930's. Some took their units and turned against Mao. Many soldiers defected to join peasant-student guerrilla bands in the hinterland. In the meantime, unrest was growing at such a pace in the big cities among students, intellectuals and workers who were disgruntled over Mao's police state tactics that Peking decided it would try to dissipate the threat of increased rebellion in its chief remaining centers of strength by disbursing a large proportion of city dwellers in the 15- to 30-year age group to the outlying provinces. There they were to accept the strict direction of Communist peasant cadres and PLA units still loyal to Mao and presumably get closer to the masses. Hong Kong intelligence sources estimate that twenty-five million students, intellectuals, and workers have been forced to leave the cities.

At the same time, Mao's dwindling number of loyal associates spread out through the provinces to hand-pick delegates to a long-overdue Ninth Party Congress.

NEAR ANARCHY AND MILITARY RULE

A motley assortment of peasants and soldiers, a sprinkling of workers and those few trained Communist bureaucrats still pledged to support Mao were finally brought together in Peking in the spring of 1969. The 1,500 delegates to the Congress met in closely guarded, secret sessions and rubber-stamped a revised Constitution giving Mao and Lin Piao supreme dictatorial power over both the Communist Party and the country and formalizing the purge of Liu Shao-chi and the hard-core of the entire Party organization.

Army commanders took control of the Congress and the resulting Central Committee and, since that time, have virtually run the country in Mao's name.

Though still able to keep Mao in power, the Army's rule has done little to improve conditions on the mainland. Near-anarchy prevails in much of rural China where Maoists, anti-Maoists and outright anti-Communists fight bitterly for control of government granaries, military depots, arms caches and the allegiance of local Army units.

The result is that in the fall of 1969 there are still-unconfirmed reports of near-famine conditions in many parts of the country. Industrial production—erratic ever since the Cultural Revolution was launched—is believed to be far off schedule and Red China's foreign trade, after a brief rebound in 1968, is again slipping. Since 1965, Peking's import-export activity has dropped off fifteen to twenty percent and foreign buyers who attended the 1969 Canton trade fair came away complaining that once you got beyond the booths and exhibits featuring Mao Tse-tung's books and "Thoughts," there was little to buy. The samples shown were the same products that had been available before the Cultural Revolution.

Rationing prevails for such items as medicines, soap, all but the simplest food products, thread, kerosene, matches and cigarettes. There is so little cloth available for even mending worn out clothes that overseas Chinese report their relatives behind Mao's

Bamboo Curtain are writing to request dry-goods instead of money.

The diet now of the average peasant at best is no better than it was in 1939—not 1949. And in 1939, the Japanese were waging all-out war against the hard-pressed troops of Chiang Kai-shek.

Skilled workers not yet dislocated from their factory jobs in the cities put in a 10- to 12-hour day for six to six and one-half days per week.

U.S. News and World Report (March, 1969) noted that Red China has built no new rail lines in ten years, even though it is building them under trade-and-aid agreements for Zambia and Mali in Africa.

As far as those famous agricultural statistics, those records of farm production and acreage—no comprehensive ones worth considering seriously have been published for ten years.

The soil is said to be depleted from a near-total lack of fertilizer inputs other than scant amounts of human nightsoil.

Mainland China's historically efficient, though complex, irrigation systems are reportedly in disrepair. Those that have been built or repaired by the Red Guard cadres while they memorize the "Thoughts of Mao" for guidance show structural defects. Similarly, many public works projects carried out with great fanfare and haste during both the Great Leap and Cultural Revolution periods are falling apart.

Refugees escaping from the mainland in the past two years often describe how bridges and dams of unsound design and construction collapse or wash out, causing flooding of fields and villages and the destruction of sections of highways and railroad lines. Maintenance crews are frequently too involved in fighting to deal with the breakdowns in equipment or facilities.

Yet, in the face of this mounting tally sheet of failure, Mao's propaganda organs late in the summer of 1969 began calling for another "leap." This time they are avoiding use of the Chinese words "ta-yueh-chin." They just allude to the desirability of a "yueh-chin" (leap) and Peking Radio has suggested what is needed is a "fei-yueh" (flying leap). Some provincial papers smuggled out to Hong Kong by refugees quote Peking as asking the peasants for a "kao-ch'ao" (upsurge).

This summer after *Peking Review* posed the alternatives facing Communist decision-making, as quoted at the very beginning of this article, editorial writer Ko Cheng gave up further attempts at reason to return to the Maoist line:

"Our great leader Chairman Mao's teachings that politics is the commander, the soul in everything, that 'political work is the lifeblood of all economic work', and the great principle he advanced of 'grasping revolution, promoting production' have, theoretically and in practice correctly solved this question and creatively developed Marxism-Leninism. These teachings of Chairman Mao's are our basic guiding thought in successfully carrying out socialist revolution and socialist construction."

Such propaganda fiction—in fact, Chairman Mao's teachings—have "solved" no questions or problems. They have only created them.

WHY HAS MAO FAILED?

Now that there is every indication that some momentous new program will be attempted, despite the failures of the Great Leap of 1958-59, and the Great Cultural Revolution of 1965-69, one has a right to ask how Mao and his followers could have made such colossal blunders.

Those few China observers outside the Bamboo Curtain who have followed Mao's methods but remain objective about him privately share a theory which is worth serious consideration. The same theory may well apply to a Communist leader like Fidel

Castro who has managed to ruin the economy of Cuba in ten years.

It is simply that Mao is a guerrilla fighter whose training and instincts have taught him that success for the guerrilla in war is obtained by disrupting that which is orderly and bringing the full weight of whatever power is at his disposal to bear on the weakest point. He uses the same methods when dealing with Red China's economy.

He concentrates all of his energies—and consequently all of the energies of the nation he leads—on achieving a single objective. For example, in the early 1950's, he used his army and newly-won control of China to win a political victory in Korea—at the expense of his own Communist programs for the Chinese nation. Then he turned his full attention at home again to "agrarian reform." Then he withdrew from rural problems long enough to move against private enterprise and industry in the cities. He returned again to the villages and countryside to impose communes and make a Great Leap. This time his efforts backfired. He regained power by turning the Red Guards loose in a so-called Cultural Revolution and when they were no longer controllable, he turned the army loose to clamp down on the Red Guards. Now he dreams of a flying leap and has already decided that urbanites and students must be forcibly uprooted from the cities to be taught by the peasant in the countryside. Always the effort is a mass effort. One writer has suggested that the backyard steel program of the Great Leap was "industrialization by mass movement."

But where he has failed, and failed so completely, is in trying to substitute labor for capital and bulk masses for selective, individual know-how. The problems of agriculture, industry and commerce are much too complex to be solved in this manner over an extended period of time. An economy develops only when there is some harmony in all sectors—not when total national attention and resources are devoted to just one at a time—and certainly not when the attention on one is at the expense of the other.

However, the real reason both Mao and Communism have failed in the past score of years is perhaps more realistically found in the nature of China and its people.

Back in 1947, the great modern Chinese writer and scholar, Dr. Lin Yutang, wrote:

"In the four thousand years of China's history, four great political experiments in totalitarianism, state capitalism, socialism and drastic social reforms were attempted, and each of these failed miserably."³

When this writer interviewed Dr. Lin at his home in Taiwan in 1967, he was prepared to update the statement to increase the number to five after seeing Communism's record in China.

Neither China, nor the highly individualistic Chinese, lend themselves to totalitarian schemes for long. Mao and the Communists have been learning this the hard way for twenty years.

PUBLIC HEARINGS, TAX REFORM ACT OF 1969—SUMMARY OF TESTIMONY

Mr. LONG. Mr. President, today the Committee on Finance received testimony with respect to that part of the House tax reform bill which reduces depletion allowances and cuts back on the tax advantages for production payments of oil and gas. A number of distinguished citizens representing the oil and gas in-

³ *The Gay Genius: The Life and Times of Su Tungpo* by Lin Yutang, 1947. The John Day Company.

dustry outlined the restrictions which would be placed on the entire business if these provisions were retained in the Senate bill and enacted into law.

So that Senators might follow the progress of these tax reform hearings, I ask unanimous consent that a summary of the testimony be printed in the RECORD.

There being no objection, the summary was ordered to be printed in the RECORD, as follows:

WITNESSES

HON. JOHN G. TOWER, U.S. SENATOR,
STATE OF TEXAS

Taxation of the oil and gas industry

Feels that proposed tax changes with respect to the oil and gas industry will be a heavy blow to these industries. Expresses concern that this will hinder our ability to maintain a strong national security posture.

Indicates that the United States cannot afford to be dependent on foreign sources of oil in times of national emergency. States that our national security dictates that we have sufficient petroleum resources, and that a healthy oil and gas industry requires continual exploration and access to risk capital.

Advocates continuation of the 27½ percent depletion allowance for oil and gas. Considers this allowance, together with the ability to deduct intangible drilling costs and exploration expenses, to be the prime source of generating new capital within the oil and gas industry.

NATURAL RESOURCES: DEPLETION ALLOWANCES, EXPLORATION EXPENSES, PRODUCTION PAYMENTS—OIL AND GAS

Coordinated testimony of: American Petroleum Institute; Mid-Continent Oil and Gas Association; Western Oil and Gas Association; and Rocky Mountain Oil and Gas Association

EMILIO G. COLLADO, EXECUTIVE VICE PRESIDENT, STANDARD OIL CO. (NEW JERSEY)

Tax treatment of natural resources

Urges that the foreign tax credit and percentage depletion provisions in the House bill applying to the foreign activities of U.S. petroleum companies be rejected. States that by increasing the tax burden on U.S. petroleum companies' operations abroad, these provisions would seriously weaken the ability of U.S. companies to compete effectively with foreign oil companies, many of which receive substantial tax benefits and, in some cases, cash subsidies from their home governments. Believes that these measures should be assessed in the light of the contribution which U.S. petroleum investments abroad make to important U.S. national objectives.

Indicates that despite the high rate of growth expected in our domestic oil producing capacity in the future, the United States will have to rely increasingly on foreign source oil to meet our growing requirements. Believes that the best way to provide that our country will have access to sufficient foreign-source petroleum is to encourage U.S. companies to continue to search and develop these resources in diverse foreign areas.

States that these provisions in the House bill would seriously undermine valid and long-standing principles of tax equity and of preventing international double taxation which U.S. tax laws have traditionally sought to achieve. Indicates that the elimination of foreign depletion abroad would discriminate against the foreign activities of U.S. petroleum companies by denying them tax treatment comparable to petroleum operations conducted in the United States. Points out that the foreign tax credit provisions in the House bill would double tax parts of a tax-

payer's income and would introduce international double taxation on the integrated petroleum industry operations abroad by denying to the mineral industry alone the effective use of the overall basis for applying the foreign tax credit. States that this discrimination against foreign source income, and against the mineral industry in particular, seems unjust and unwarranted, especially since these provisions are unlikely to produce a significant amount of revenue for the United States.

ROBERT G. DUNLOP, PRESIDENT, SUN OIL CO.

The petroleum industry

Indicates that the United States is heavily dependent upon petroleum energy, as oil and gas provide nearly three-fourths of all energy consumed in the United States. States that assured supplies of petroleum are vital to the national security of the United States.

Maintains that under present tax incentives, the domestic petroleum industry has met this country's essential petroleum needs. Notes that gasoline prices, excluding direct taxes, are up only 10 percent since 1926, and that the tax incentives have contributed to this price stability.

Argues that the tax incentives for oil and gas have provided an effective incentive for research and exploration, as well as conservation of natural resources through encouraging the use of marginal oil.

Maintains that the petroleum industry earns only average profits on investment compared to other manufacturers, and also carries an overall tax burden equivalent to or exceeding the tax burden of other industries. Argues that increased taxes, absent of any remedial action, would either increase petroleum prices or reduce profits and thereby reduce investment. Contends that complete elimination of tax incentives would make the United States heavily dependent on foreign oil, which could involve us in a Middle East conflict.

States that the combination of rising costs is limiting funds available for investment and that reserves of oil and gas declined both relatively and absolutely in 1968. Asserts that Federal control of natural gas wellhead prices is partially offsetting the benefit of tax incentives and is creating a serious supply problem for the industry.

WILLIAM I. SPENCER, EXECUTIVE VICE PRESIDENT, FIRST NATIONAL CITY BANK, NEW YORK, N.Y.

Percentage depletion for oil and gas

States that the proposed changes in the tax treatment of minerals could endanger both the international payments position and the energy supplies of the United States, and they could have serious, long-term consequences for the welfare of the Nation.

States that the petroleum industry will have to attract—for domestic exploration and development—as much as \$70 billion for the 10-year period through 1980, and that in attempting to do this the industry will be hampered by the likely continuance of monetary stringency in the economy, and also because the liquidity of leading petroleum companies has been declining, while their dependence on long-term debt has been rising sharply. Contends that the ability of the industry to finance its currently increased exploration and development will depend upon its future ability to maintain and approve its profitability.

Believes the tax structure should be designed to enable the industry to meet the Nation's energy goals, and that the House provisions do not meet this test.

GEORGE V. MYERS, EXECUTIVE VICE PRESIDENT, STANDARD OIL CO. OF INDIANA

Reduction in domestic depletion rate

Maintains that the proposed reduction in the domestic percentage depletion rate from 27½ to 20 percent contravenes the national interest.

Production payments

States that the treatment of reserved production payments as loans will cause a reduction in value of 15 to 20 percent. Contends that this reduction decreases the funds available to independents, thus impairing their ability to continue in the business of exploring for and developing oil and gas reserves.

Allocation of deductions

Argues that this proposal would tend to restrict the effectiveness of percentage depletion and intangible drilling cost deductions as incentives to invest the huge amounts of money needed to supply petroleum needs.

Tax treatment of oil shale

Maintains that the provision in the House bill clarifies existing law and is desirable because depletion on the kerogen extracted from the rock shale is necessary if this important natural resource is to be developed.

Limit on tax preferences

Urges the committee to reject the Treasury Department's recommendation to include percentage depletion and intangible drilling costs in computing the limit on tax preferences.

Taxation on gains on sales of mineral properties

States that the Treasury Department has proposed that gains on sales on mineral producing properties be taxed as ordinary income to the extent of intangible drilling costs which have been allowed as deductions. Maintains that the adoption of this proposal would substantially reduce the real value of mineral properties and it would make investment in exploration and development ventures less attractive at a time when there is a vital national need to make it more attractive.

Other proposals

Criticizes three other proposals—including (1) plowback of depletion deduction, (2) capitalization of intangible drilling costs of development wells, and (3) graduated depletion rates that would reduce tax incentives for oil and gas producers.

Plow-back of depletion deduction

States that under this proposal producers would be permitted a 27½ percent depletion rate if they spend an equal amount in domestic exploration and development. Argues that the proposal is based on the false assumption that exploration and development expenditures are less than the industry's depletion deduction. Suggests that if the depletion deduction is to be based on future exploration and development, then inevitably a producer's expenditures for exploration and development will be influenced by and scheduled according to the amount of depletion that needs vesting. Argues that a reduction of the depletion incentive will deter others from entering the natural resource business, especially since those already in the business who have excess depletion would have lower costs of exploration and development through the vesting of past depletion.

Capitalization of intangible drilling costs of development wells

Maintains that the result of this proposal would be a serious disruption in funds available for exploration and development. Argues that the capitalization of these intangible costs will not ultimately increase taxes but will merely change the timing of deductions.

Percentage depletion at graduated rates

States that the net effect of this proposal would be to reduce percentage depletion for the industries as a whole, and that such a proposal would punish those who furnish the bulk of the Nation's energy supply. Believes that such a proposal would also reduce the incentive for a small company to grow larger.

Coordinated testimony of independent producers; Independent Petroleum Association of America; Independent Oil and Gas Producers of California; Independent Oil Producers and Land Owners Association, Tri-State Inc.; Kansas Independent Oil and Gas Association; Oklahoma Independent Petroleum Association; Panhandle Producers and Royalty Owners Association; Texas Independent Producers and Royalty Owners Association; and West Central Texas Oil and Gas Association

H. A. TRUE, JR., TRUE OIL CO.

Tax treatment of natural resources

Maintains that a healthy, expanding domestic industry is the best assurance of adequate supplies of oil and natural gas. Contends that the domestic industry's activities in searching for and developing U.S. petroleum resources have declined to inadequate levels, imperiling the Nation's economic progress and future security.

Argues that the proposed changes in petroleum tax provisions would sharply reduce the incentive to invest capital in exploration and drilling. States that if these changes are enacted, total expenditures for U.S. exploration and development would decline to only \$2.4 billion by 1980, compared with a required expenditure of \$8.3 billion, with the result that the United States would be dependent on foreign sources for over 50 percent of its requirements.

Contends that the changes would have a devastating effect on independent producers and would force many of them to discontinue exploration and drilling.

Argues that the search for new reserves of oil and natural gas is inseparable, and that the present shortage of natural gas would be aggravated by the proposed changes.

Contends that the bill would result in increased prices that would cost consumers about \$10 billion yearly by 1980.

CLINTON ENGSTRAND, CHAIRMAN, LIAISON COMMITTEE OF COOPERATING OIL AND GAS ASSOCIATIONS

General

Points out that there is a need for oil and gas exploration and that the tax reform movement, as it relates to the petroleum industry, has concentrated on ways and means to reduce rather than increase the economic incentive of the independent producer. Indicates that the tax changes that have been made would impede independent producer decisions to borrow and/or spend the large amounts of funds necessary to drill wells. States that the ups and downs experienced by small business in this high-risk industrial activity requires the incentive aid that comes from other tax features under attack, including domestic percentage depletion, the ABC payment method, carved-out production payments, and capital gains sales of mineral property. Believes that the elimination or reduction of any of these longstanding tax features would further reduce the Nation's vital petroleum drilling effort.

Position of associations

Contends that in order to accomplish the drilling job required by the Nation, the following provisions must be in the Nation's oil tax policy: (1) expensing of nonrecoverable drilling costs (intangibles), (2) the loss carryforward tax provision, (3) liberalization of the 50 percent net income limitation on percentage depletion application, (4) retention of capital gains treatment for total value of oil and gas property sales, and (5) a positive tax incentive program applied directly to domestic exploration efforts.

STARK FOX, EXECUTIVE VICE PRESIDENT, INDEPENDENT OIL AND GAS PRODUCERS OF CALIFORNIA

Introduction

Opposes all proposed changes in the House bill affecting the oil industry. Argues that Congress and the administration should be considering ways to add to the oil industry incentives rather than reduce them.

Conditions in the California oil industry

States that the total number of oil companies in California in 1957 was 1,465, and that in 1967 it was 1,044, a drop of 29 percent. Points out that the State Franchise Tax Board reported that 1,039 oil companies filed State income tax returns for 1957, but only 658 filed such returns for 1967. Of the 1,039 companies filing in 1957, 428 reported taxable income, on which they were assessed \$8,263,214 in taxes. Of the 658 companies filing in 1967, 330 reported taxable income on which they were assessed \$16,074,343 in taxes. Indicates that oil production in 1957 was 928,971 barrels a day and 984,722 barrels a day in 1967; thus the State income tax per barrel of oil produced, nearly doubled.

Conditions among independent producers

Indicates that between 1957 and 1967 the major companies increased their share of total California production from 45 to 53 percent; the 43 principal minor companies increased from 28 to 29 percent; and the independents dropped from 9 to 3.7 percent. States that data covering oil field development shows the same trend: in 1957, the major companies completed 44.6 percent of all wells and in 1967 they completed 53.8 percent; principal minor companies increased their completions from 24.5 to 37.0 percent; and independents dropped from 30 to 8.3 percent of total completions. Notes that major companies had 45.5 percent of all wells in 1957; but this figure had increased to 53.4 percent by 1967; principal minor companies increased their share of all wells from 25 percent in 1957 to 27.4 percent in 1967; and independents dropped from 22.7 to 10.3 percent of total wells during the same period.

Disincentives

Points out that by using the ratio of oil production to taxes as a rough guide, the district V—Alaska, Arizona, California, Hawaii, Nevada, Oregon, and Washington—producing industries share of the added annual tax load under the tax reform bill would be approximately \$84 million, based on its current 14-percent share of total production in the United States. Contends that this added tax would be significant for the independent and minor companies, and that it would come directly out of their pockets.

Producers have no "ultimate consumer"

Indicates that in the oil producing industry the buyer, not the seller, determines the price they will be paid for crude oil and that the producer has no way of shifting the burden of any added expense, be it taxes, higher wages, or any other. States that the impact of added expenses is particularly severe for the California producer because California crude prices average \$2.51 per barrel in the Nation where average crude prices are less than they were in 1959. Points out that California is the only oil producing region in the world today, whereas in 1959 the average was \$2.55.

D. F. M'KEITHAN, JR., PRESIDENT, INDEPENDENT OIL PRODUCERS AND LAND OWNERS ASSOCIATION, TRI-STATE, INC.

Percentage depletion and intangible drilling cost

States that, in the tristate area of Indiana, Illinois, and Kentucky, a reduced depletion rate would seriously cripple this segment of the domestic oil industry resulting in the obvious curtailment of employment with the concomitant loss in payrolls and taxes as

well as a loss in oil production and, consequently, royalties to the landowners, and taxes to the counties. Emphasizes that a change in the manner of deduction of intangibles will literally, and without exception, destroy the domestic oil business in the tristate area because the principle sources of capital funds relied upon by operators are derived from outside investors; any required capitalization of such funds will shut off completely this flow of money and force operators out of business.

Points out that over 1,500 small businessmen employing approximately 30,000 men and women in our tristate area annually contribute about \$400 million to the economy, which includes \$30 million annually paid to landowners in royalties and over \$6 million in taxes to the counties. States that the proposed tax change will not merely work a temporary hardship upon these independents, but such changes will virtually eliminate them as a contributing segment of the economy, which would be unable to compensate for such a loss. Maintains that the country cannot afford to lose this segment of its domestic oil industry because once it is lost, it is doubtful that either the reserves or the skilled technicians could ever be replaced.

TOM SCHWINN, EXECUTIVE VICE PRESIDENT AND COUNSEL, KANSAS INDEPENDENT OIL AND GAS ASSOCIATION

General

Points out that the oil industry has been pictured as a single monolithic industry but that in reality it is composed of two segments: Independent domestic producers, and the major international oil companies. States that in the foreseeable future this Nation must depend upon the independent operator to explore and develop the country's petroleum resources, because the relative profitability of foreign oil has encouraged the major international companies to spend much of their exploration dollar in foreign countries.

Tax incentives

Indicates that the tax incentives necessary to carry forth the need of a healthy domestic petroleum industry are the following: The expensing of nonrecoverable business expenses (intangibles), percentage depletion, liberalization of the 50-percent net income limitation on percentage depletion, loss carryforward tax provision, and retention of capital gains treatment.

Believes that the methods proposed in both the House bill and by the Treasury to correct the so-called tax loopholes do not justify the drastic changes and penalties imposed upon the majority of legitimate oil and gas operators who are now paying a foreign sale of the necessary burden of the cost of Government.

Treasury's limit on tax preference and allocation of deduction proposals

Indicates that the LTP provisions would have a nominal effect upon the established oil operator or high income investor, but would affect the young operator with minimal oil and gas income, or for the investor with small outside income.

Opposes the proposal to include intangible drilling costs in the allocation of deduction provision. Urges that the 60-percent limitation for the application of the allocation of deductions be derived from oil and gas operations, including, but not limited to, all phases of exploration, development, drilling and producing, rather than from the sale of oil and gas. Indicates that there are a number of legitimate related activities for fully qualified oil and gas operators.

Believes that intangible drilling cost, in any case, should be excluded from the allocation of deductions rule on the basis that

it is not truly a tax preference item. Points out that the theory of the allocation of deductions rule is that no cash is expended and that the intangible drilling costs do involve cash outlays in a legitimate search for oil and gas.

States that the inclusion of intangible drilling costs in the allocation of deduction provision would discriminate against the investor of the independent operator and that the 60-percent limitation would be a disincentive to the independent segment and have no true effect on the national oil companies.

Indicates that the suggested recapture rule for intangible drilling costs upon the sale of property would have its most adverse effect upon the small operator who periodically would be forced to sell a discovered lease to retire bank loans and other obligations incurred in drilling and developing the lease.

Believes that the proposed 50 percent top marginal rate on earned income, coupled with other proposed tax changes which affect the investor would eliminate him as an oil and gas speculative.

WILLIAM B. CLEARY, PRESIDENT, OKLAHOMA INDEPENDENT PETROLEUM ASSOCIATION

Percentage depletion for oil and gas

Believes the concept of percentage depletion is sound, and that it serves a vital function with respect to the risk capital needed for oil and gas exploration. Expects the major companies to do less drilling in Oklahoma as budgets are shifted more and more to offshore areas and Alaska, and feels independent producers have the burden of finding new domestic reserves of oil and natural gas.

Contents the present 50 percent net income limitation with respect to oil and gas depletion is an artificial limitation which renders it largely ineffective when it is most needed—urges that it be eliminated.

C. H. HINTON, PETROLEUM CONSULTANT, PANHANDLE PRODUCERS & ROYALTY OWNERS ASSOCIATION

Percentage depletion for oil and gas

States that it is an indispensable fact that there is a very serious shortage of natural gas being developed in the United States, and if future requirements are to be supplied, the number of well completions must be doubled over the 1968 level in the shortest possible time.

States that there are thousands of yards of sediments which are estimated to be productive of natural gas that have not been tested by the drilling of wells. Contents that any downward reduction in statutory depletion, or any reduction in intangible drilling costs as a tax reduction will cause a further decline in the number of well completions.

WILLIAM J. MURRAY, JR., PRESIDENT, TEXAS INDEPENDENT PRODUCERS AND ROYALTY OWNERS ASSOCIATION

General

Indicates that the Nation is running out of oil and gas mainly because of the lack of adequate incentive for domestic exploration and drilling. States that reserve productive capacity has been grossly overestimated and that some degree of consumer rationing might prove necessary in any future foreign-supply curtailment. Indicates that an attempt to fill the emerging energy gap by increasing imports would not only endanger national security but would thwart all efforts to close the Nation's payment gap.

Believes that the provisions in the House bill which affect the oil industry would further depress domestic exploration and drilling at the very time when the increase is required to avert a supply crisis.

Expensing of nonrecoverable costs

Indicates that the expensing of nonrecoverable costs is absolutely vital to the domestic wildcatter, and to require that these costs be capitalized would render it impossible for

most small operators to look for oil and gas. States that the intangible charge of privilege does not allow the producer to retain tax-free income, but rather encourages him to go into debt or seek outside risk capital in order to remain in the business of searching for reserves to produce. Indicates that the denial of the intangible expensing privilege would be injurious to independents trying to get started but would have far less effect upon the large integrated companies and larger independent producers.

Percentage depletion rate

Supports the 27.5 percent depletion rate. Points out that percentage depletion is an incentive to drill in a high risk industry. States that if the rate were too high, there would be disproportionate concentration of resources into this enterprise when the contrary is true.

50 percent of net limitation

States that the 50 percent of net limitation on the depletion allowance is a particular hardship upon the small operator and upon the caretakers of the marginal or stripper wells. Points out that because of this limitation, few domestic independent producers use the full 27½ percent depletion rate. Indicates that an increase in the net limitation would enable all operators to realize a more uniform depletion percentage factor and would encourage domestic independence to become more active in the search for oil.

Limit on tax preferences

States that the proposal to require individual producers and outside investors who derive less than 60 percent of their income from oil and gas operations to include intangible expensing and depletion income in computing their tax liability would be particularly injurious to independents. Indicates that since the limit on tax preferences does not apply to corporations, it would be aimed directly at the independent producers.

Other tax provisions affecting the oil industry

Points out that the mineral interest holder, or land and royalty owners, would be particularly affected by the limited tax preference and percentage reduction proposals. Believes that the proposals to deny land and royalty owners full participation in depletion would further depress domestic exploration in drilling. Points out that the elimination of the ABC method of financing development, elimination of carved out production payments, and the proposed recapture rule that would require treating as ordinary income any gain or sale of mineral properties to the extent of intangible drilling costs previously deducted, would hit hardest at the domestic wildcatter.

A. V. JONES, JR., PRESIDENT, WEST CENTRAL TEXAS OIL & GAS ASSOCIATION

Provisions affecting the oil industry

Recommends that the tax structure of the domestic petroleum industry be left unchanged. Maintains that any adverse legislation will directly affect all consumers.

Intangible drilling expenses

Argues that the cost of exploration and drilling—known as intangibles—must continue to be recognized as essential business expenses for all participants in the oil and gas industry. Believes that all costs should be deductible when they are incurred and that no limitation be applied to these costs.

ABC transactions and production payments

Believes that present tax treatment of both ABC and carve-out type oil and gas payments should be continued.

Limit on tax preferences

States that the limit on tax preferences is applicable only to individuals, partnerships, trusts, and small corporations. Believes that if this provision becomes law it will tend to

eliminate the independent producing segment of the oil industry, and will ultimately create a major company monopoly.

EBERHARD P. DEUTSCH, PERMIAN BASIN PETROLEUM ASSOCIATION

Percentage depletion rates

Opposes any reduction in the present oil depletion allowance under the income tax laws, on the ground that this allowance is a vital incentive to stimulate the search for new sources of oil and gas.

Carved-out production payments

Indicates that exploration and development of oil and gas reserves have grown increasingly expensive in recent years and that the independent producer has had to meet these costs, in large measure, from carved-out production payments. Indicates that the present advantageous tax treatment of such payments was accorded to the petroleum industry to encourage the search for oil and gas and to stimulate its production and that since these purposes are still necessary, the present tax treatment accorded to carved-out production payments should be retained.

Suggests that if it is deemed necessary to discontinue the present tax treatment of carved-out production payments, it should not be done retroactively. Points out that retroactive repeal would deprive the independent producer of venture and short-term operating capital, after he is committed and already in debt, at a time when it is virtually impossible to borrow money. Suggests that the carved-out production payments be permitted to remain in effect for the taxable year in which new legislation is enacted.

JOSEPH R. RENSCH, ON BEHALF OF THE AMERICAN GAS ASSOCIATION AND THE PACIFIC LIGHTING SYSTEM

General

States that a paradox currently exists: estimates of potential gas supplies have increased substantially; but estimates of proved recoverable reserves declined last year. Indicates that since 1946 the Nation's gas reserve/reduction ratio has declined from over 32 to less than 15. States that the addition of new proved reserves are lagging because drilling activity has declined sharply since 1958. Points out that the outlook for adequate gas supplies is bright because domestic supplies will be supplemented by imports and synthetic pipeline gas but that maximum domestic supplies must be developed now because there will be a time lag before these supplemental supplies become available in significant volumes.

Relationship of tax incentives to drilling

Points out that the current lag in exploration and development of new domestic gas supplies can be attributed basically to lack of available capital and incentive to drill for gas. Indicates that both of these factors would be worsened by a reduction in percentage depletion and elimination of other tax incentives.

WALTER E. ROGERS, PRESIDENT, INDEPENDENT NATURAL GAS ASSOCIATION OF AMERICA

Accelerated depreciation allowed regulated industries

Points out that the intent of Congress in allowing accelerated depreciation was to allow all taxpayers the free exercise of business judgment in the selection of the method of depreciation, without restriction by regulatory agencies in the case of taxpayers subject to regulation. Indicates that the position taken by several of the regulatory agencies in requiring those companies using accelerated depreciation for tax purposes to flow-through currently to the company's customers any and all tax benefits discriminates against the regulated industry and defeats the purpose and reason for accelerated depreciation.

States that fairness in the application of tax requirements or benefits demands uni-

formity to both regulated and nonregulated industries. Believes that all regulated industries now using the flow-through method of accounting for depreciation purposes should be given the right and option as to both old and new property to change the accounting method to a slower method of depreciation, to wit, straight line or accelerated depreciation with normalization, but not be required to. Indicates that all companies presently using accelerated depreciation and normalizing should be allowed to continue to do so as to both old and new property or to go to a slower depreciation on either type of property or both types, but not be required to. Believes, further, that those companies presently using the straight line method of accounting for depreciation purposes should be permitted to use accelerated depreciation and normalization on new property.

Percentage depletion rate

Opposes any reduction in the 27½ percent depletion allowance on oil and gas. States that this percentage has been in effect for over 40 years and has served to produce the incentive for the tremendous progress by this country in the development of oil and gas.

States that gas provides one-third of the energy requirements of our country and that the demand for additional service and supplies is consistently rising. Believes that the sensible investment this country could make at this time would be to retain the incentives presently available in the oil and gas industry, and if necessary, to add some rather than subtract any.

WILLIAM JACKMAN, PRESIDENT, INVESTORS LEAGUE, INC.

Capital gains

Contents that the bill was conceived and enacted in astonishing haste and will make the tax law immensely more complex and onerous for the individual taxpayer.

Opposes increasing the maximum capital gain tax from 25 to 30 percent. Contents that there would be a revenue loss from this change, rather than a revenue increase of \$300 million.

Recommends reduction of the capital gains tax from 25 to 12.5 percent, contending that there would be a revenue gain of about \$2.5 billion.

Maintains that the bill is one-sided in increasing the holding period of long-term capital assets from 6 to 12 months and removing the ceiling on the capital gains tax.

Argues that if short-term capital gains are treated as ordinary income, short-term capital losses should be deductible in full, and that if half of long-term capital gains are taxed, half of long-term capital losses should be fully deductible.

Proposes that capital gains should be reduced by the increase in the official price index over the holding period, so that gain representing inflation will not be taxed.

MORTON M. WINSTON, EXECUTIVE VICE PRESIDENT, THE OIL SHALE CORP.

Percentage depletion for oil shale

Concludes that oil shale is an economic supplement to domestic petroleum supplies. States, however, that the present Internal Revenue Code is frustrating shale oil development.

Points out that oil and gas produced from oil shale are subject to two competitive injuries in the depletion calculation under current interpretations by the Internal Revenue Service:

(1) There is no specific depletion allowance on shale oil under existing interpretation of the present tax code; and

(2) There is only a 15-percent depletion on the supposed value of the unmarketable shale rock from which the oil is separated.

Emphasizes that shale oil must compete with crude oil from wells even though oil from wells is allowed depletion on its full wellhead value at a rate of 27.5 percent.

Concludes that discrimination against shale oil production mitigates against the flow of capital into shale oil development, and it places shale oil at a competitive disadvantage in the marketplace.

Points out that oil shale retorting is not a manufacturing or refining process; it is a separation process. States that the logical point for applying depletion is after kerogen is first recovered by the separation process, and before any further processing.

Emphasizes that applying shale oil depletion to the value of the oil instead of the rock, will not affect present tax receipts one iota since there is no taxable income from the shale oil industry today. States that to launch this industry will require large amounts of capital and entrepreneurs willing to assume the substantial risks involved, both technical and financial. Requests the committee to remove the tax discrimination against shale oil and to approve the change made by the House.

B. P. HUDDESTON, P.E., CITRONELLE-MOBILE GATHERING SYSTEM CO., INC.

Effects of reducing the oil depletion allowance and the elimination of the ABC transaction

Presents a case study illustrating the effect of the proposed changes in the Federal income tax law relating to the percentage depletion allowance and the ABC transaction on the independent oil operator. States that Citronelle Field, Ala., the basis for this study, is uniquely representative of a significant oil reserve with diverse operating ownership of over 500 individuals and corporations—major oil companies own less than 20 percent of the total operating interest ownership, and over 1,000 individuals received royalty income from Citronelle production.

Believes that this study shows that the Federal income tax burden of these largely independent Citronelle operators would be increased by 19.5 percent if the percentage depletion rate is reduced from 27.5 to 20 percent. States that the combination of this reduction in rate and the elimination of the ABC transaction will reduce the market value of the Citronelle owners' operating interests (the price that would be paid by a willing purchaser) by 34 percent.

HAROLD D. ROGERS, NORTH TEXAS OIL & GAS ASSOCIATION

Production payments

Expresses the opinion that the provision of the House bill dealing with production payments is contrary to the due process clause of the fifth amendment, and is unconstitutional because it is an attempt to tax income to a mineral property owner by reference to the income from a production payment property owned by another person. Points out that the Supreme Court has held that due process is denied where one person is taxed upon the income from property owned by another person.

States that the mere fact that Congress designates certain transactions as a loan (purchase money mortgage) will not result in creating taxable income when, in fact, the income from the property is not the taxpayer's income.

ARTHUR W. WRIGHT, ASSISTANT PROFESSOR OF ECONOMICS, UNIVERSITY OF MASSACHUSETTS

Tax treatment of natural resources—lack of fairness

States that the present tax treatment of natural resources is an important source of unfairness in the Federal tax system as it enables many extremely wealthy individuals to pay less Federal taxes than persons living in poverty and enables corporations engaged in mineral production to pay far less Federal taxes than do other corporations.

Tax treatment of natural resources—Waste of tax moneys

Condemns the present tax treatment of natural resources as a wasteful and ineffi-

cient form of subsidy. States that the beneficiaries of mineral tax subsidies should have more faith in the ability of the American free market economy to produce minerals and fuels without Federal aid.

Rejects claims that natural resource producers pay their fair share of Federal taxes. States that claims of this sort often use misleading basis for comparison (such as gross income instead of taxable income) and inconsistently lump together foreign taxes, Federal taxes, local taxes, and user charges when computing the industry tax burden. Rejects, also, claims that the present tax treatment of natural resources is needed to let natural resource producers recover their capital investment in mineral properties. Points out that this recovery can be accomplished through cost depletion and the present tax treatment is defective because it permits tax-free recovery of amounts far greater than mineral producer's original capital investment. States that this tax treatment discriminates against other industries that also must attract substantial amounts of capital investment.

Tax treatment of natural resources

Points out that the present system of mineral tax subsidies creates severe administrative burdens for Government and business alike. Indicates that the areas of greatest administrative difficulty concern "economic interest" individuals, depletion rate determinations, cut-off point questions, unit price computations, and the 50 percent net income limitation on percentage depletion.

Recommendations

Describes the present program of tax assistance to the natural resource industries as an inequitable, wasteful, problem-ridden Government-aid program. Urges the committee to scrap the existing aid program and substitute depletion computed on the basis of actual costs, together with capitalization of intangible frilling costs and recovery of such costs over the useful life of the property like business investment in other industries.

States that the natural resource provisions in the House bill are a step in the right direction, but criticizes both the House bill and the administration's proposals for failing to eliminate percentage depletion entirely and for failing to require full capitalization of intangible drilling and development costs.

RECORDKEEPING REQUIREMENTS OF THE GUN CONTROL ACT OF 1968

Mr. DODD. Mr. President, a concerted effort is afoot to dismantle the Gun Control Act of 1968.

The Senate, after 35 days of committee hearings, at which 154 witnesses appeared, debated this firearms legislation for 6 weeks.

Based on all of this legislative activity, we wrote into the act provisions to require the keeping of records on the sale of ammunition so as to prevent bullets from being sold to criminals, juveniles, and persons who currently own weapons in violation of local laws.

The major charge against these provisions is that the Treasury Department has now issued regulations that require "massive bookkeeping," the obtaining of "privileged" information, and, in effect, the "registration" of firearms.

Because I knew this was untrue, I decided to find out exactly what happens when a person goes to a sporting goods store to buy bullets.

A female staff member of the Juvenile Delinquency Subcommittee was sent to several Maryland sporting goods stores

which had figured in the subcommittee's previous investigations of out-of-State sales of firearms.

She asked for .22-caliber rimfire cartridges, of the kind that killed Senator Robert Kennedy.

She asked for rifle cartridges of the kind that killed Rev. Martin Luther King and President John Kennedy, and she asked for shotgun shells of the type that killed Medgar Evers.

At this point, I quote from her report on the purchase of these items:

The man asked for my driver's license which I put on the counter. He wrote a sales ticket listing my name and address and the number of my D.C. driver's license, took my money, and gave me a copy of the slip and the shells.

The sales slip also lists the quantity, type, and cost of the ammunition. This information has always been obtained by any legitimate businessman. It is identical to the ones issued in department stores every day, which might list such an item as: one green wool dress, \$25.

At a second store in the Maryland area, the staff member again purchased .22-caliber rimfire cartridges. These were long rifle .22's of the kind used in 60 percent of the rifle murders in the United States last year. I again quote from her report on these transactions:

In a bound ledger the salesman recorded the purchase, my name, address, and birthdate, and "D.C. Op." indicating my vehicle operator's permit as the source of the information. He gave me a sales slip with only the price and purchase listed.

Is this "backdoor gun registration"? Is this the elaborate registration procedure referred to by Senator BENNETT? Is this the "cumbersome burden" put on the purchasers of ammunition?

I have here in my hand the sales slips from these transactions.

The actual purchases took 4 minutes.

To describe this entire process as an "elaborate registration procedure" is almost laughable.

I am sure some Senators may ask, "All right, if this is really all that is required, the recording of the name, age, and address, of what value is this procedure or this information?"

Well, I will tell them the value of it.

The same staff member initially went to two sporting goods stores in the District of Columbia and attempted to buy the same ammunition. The clerks at both stores refused to sell her the ammunition because she did not have a firearms registration card from the District of Columbia police showing the registration number and the kind and caliber of gun for which she would be allowed to buy ammunition under the District law.

It was then that she drove to the nearby stores in Maryland to buy the ammunition.

Now I believe that the value of what transpired at the Maryland stores is obvious.

I am sure the District of Columbia is not registering guns to known criminals. That means criminals can not buy ammunition here. If they went to Maryland, they would be deterred from purchasing ammunition, because they would not want to identify themselves and

leave a record of the transaction, as our staff member did.

In fact, it would make more sense to me if the Senate were to consider prohibiting the sale of ammunition to non-residents, if such sales were in violation of their State or local laws, rather than to consider, as is now the case, the repeal of ammunition controls.

The Gun Control Act has prohibited the Washington criminal from buying his gun outside of the city in violation of its laws, and it makes sense to enact similar controls with regard to ammunition.

The Bennett amendment, however, would give the Washington criminal free and unaccountable access to ammunition for a weapon which he may already have.

And we must remember that tens of millions of deadly firearms are abroad in the land.

If a gun-toting District juvenile, who appeared to be over the age of 18, similarly traveled to one of these Maryland stores, he would not have to prove his age if we approved the proposal of the Senator from Utah (Mr. BENNETT).

And if the Bennett amendment were adopted, Washington criminals would undoubtedly avail themselves of the vast supply of ammunition in surrounding suburban communities. Thus, the Bennett amendment would remove an important element of proof in the investigation of firearms crimes. Investigation of crime by law enforcement officials is greatly benefitted by record of ammunition sales, particularly where police suspect a particular individual of a specific firearms crime.

I do not suggest that the situation I have just described is unique to the Nation's Capital. It would apply to any jurisdiction that has firearms or ammunition controls.

If the Bennett amendment were adopted, any criminal or delinquent who already owned a gun, any mature juvenile, anyone who wanted bullets for a homemade "zip gun," anyone who owned a gun in violation of the laws of his city or State—any of these people could walk into any store in a neighboring city or State with loose restrictions and obtain all the ammunition he wanted to use as he saw fit.

Mr. President, in view of the spiraling crime rate, in view of the ever increasing use of guns in murder, assault and robbery, I hope it will never be said that all that the United States Senate could do was to cave in to the gun and bullet lobby.

I ask unanimous consent that the sales slips be included in the RECORD.

There being no objection, the sales slips were ordered to be printed in the RECORD, as follows:

[Sales slip No. 12 from the Save-way Surplus Trading Post, 2747 Nichols Ave., S.E.; 11417 Georgia Ave., Wheaton, Md.; 4650 Suttland Rd., Suttland, Md.]

SEPTEMBER 26, 1969.	
Name (None.)	
Address (None.)	
Clerk (None.)	
1 Box 22 L.R.-----	\$0.93
Tax -----	.04
Total -----	.97

[Sales slip No. 19933 from the N. F. Strebe Gunworks, 4926 Marlboro Pike, S.E., Washington, D.C.]

SEPTEMBER 26, 1969.

Name: Elizabeth V. DePaulo.	
Address: 2513 Eye St. N.W., Washington, D.C. 20037.	
1 Box 22 L.R.-----	SU----- \$0.93
1 Box 30-30 Hawthorne-----	4.15
1 Box 12 g Win AA No. 9-----	3.25
Total -----	8.33
Tax -----	.34
Total -----	8.67

For your protection and for the protection of others always use extreme care in handling this or any other firearm. This device is classified as a firearm and as such is sold by us with the distinct understanding that we assume no responsibility for its resale under local laws and regulations nor for its safe handling by any person or persons who may come into possession of it. We assume no responsibility for physical injury or property damage resulting from either intentional or accidental discharge.

Received by (None.)

SENATOR HARRISON WILLIAMS WRITES ABOUT CLOSING THE OPPORTUNITY GAP

Mr. MUSKIE, Mr. President, the September 1969, issue of the Junior College Journal, published by the American Association of Junior Colleges, contains an article that should be of vital interest to everyone concerned about postsecondary education and the future of higher education in America.

The article, entitled "To Close the Opportunity Gap," was written by the Senator from New Jersey (Mr. WILLIAMS). Senator WILLIAMS is the author of the Comprehensive Community Act of 1969, a bill which would focus Federal resources on the 2-year school.

As cosponsor of this important bill, I am delighted to call this article to the attention of the Senate and to salute Senator WILLIAMS for his continued leadership in stimulating discussion on postsecondary education.

I ask unanimous consent that this timely article be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

TO CLOSE THE OPPORTUNITY GAP (By Harrison A. Williams)

(EDITOR'S NOTE.—Senator Williams has been a member of the Education Subcommittee of the Senate Labor and Public Welfare Committee since he first came to that house in 1958. He introduced the Comprehensive Community College Act of 1969 to the Senate, February 17.)

During the past decade, Congress has launched a host of imaginative and long-overdue education programs which have transformed the United States Office of Education from a tired and marginal office to a center of action and controversy handling in excess of \$4 billion. Fifty-five per cent of the more than seventy-five programs administered by the Office of Education were enacted in the eighty-eighth and eighty-ninth Congresses—a period from 1963 to 1966. Unfortunately, the Office of Education at the same time has moved in a limited way to meet the challenge of learning at the postsecondary level of education—the challenge on our nation's campuses. This is particularly true of the community junior college, an institution which has the potential and the appar-

ent flexibility to fulfill the laudable goals of American education. This response is also unfortunate because these colleges represent a new level of education which is emerging in the country in response to a lack of relevance in traditional education.

While the community junior college is demonstrating that it is equipped best for the job of extending much-needed educational opportunities in the country, the federal government has failed in its full responsibilities to these colleges which represent almost half of all institutions of higher education and approximately one-third of all students in higher education.

The Bureau of Higher Education, which is responsible for the needs of community colleges in the Office of Education, has supported efforts through the programs indicated on the facing page (not printed in the RECORD).

BUREAU OF HIGHER EDUCATION PROGRAMS

Program	Legislation	Amount	Percent
National defense student loan program	NDEA-II	\$7,000,000	3.9
Educational opportunity grants	HEA-IV-A	6,000,000	6.5
College work-study	HEA-IV-C	17,700,000	15.7
Grants for construction of undergraduate facilities	HEFA-I	67,000,000	25.0
Loans for construction of academic facilities	HEFA-III	14,800,000	10.0
Improvement of undergraduate instruction	HEA-VI-A	4,000,000	27.6
Comprehensive planning grants	HEFA-I, sec. 105	1,220,000	30.5
Strengthening developing institutions	HEA-III	6,600,000	22.0
Education professions development-training	EPDA V-E	74,000	1.6

In the Bureau of Adult, Vocational, and Library Programs, community college projects made up 10 percent of the total 719 institutional programs in 1968 under Title I of the Higher Education Act of 1965. Only two colleges received grants under the Adult Education Act's Special Experimental Demonstration projects and Teacher Training section. Under the Adult Basic Education programs, only the following estimated percentage of funds are going to community colleges under state distribution formulas:

State distribution of adult education programs

	Percent
New Jersey	8
New York	5
North Carolina	100
Virginia	3
West Virginia	2
Kentucky	5
Mississippi	2
Illinois	10
Wisconsin	100
Iowa	100
Kansas	50
Texas	1
New Mexico	1
Wyoming	10
Montana	10
Idaho	3
Colorado	12

Under the Manpower Development and Training Act (M.D.T.A.) of 1962, as amended, 115 institutions in only twenty-seven states share 7 percent of total M.D.T.A. institutional projects. Title III, Part I, of the Communications Act of 1934, as amended by the Public Broadcasting Act of 1967, has approved three grants to junior colleges. The Vocational Education Act of 1963 funded 444 community junior colleges with only 14.7 percent of funds under state programs which have recognized the contribution of community colleges to career development. Title III of the Library Services and Construction Act has four states which have specifically identified junior colleges in their state plans.

For fiscal year 1969, the Bureau of Research in the Office of Education had \$89.4 million available under Title IV of P.L. 89-10 and Section 4-C of P.L. 88-210. Community colleges were involved directly in \$451,249 worth of this research activity; when the amount involved indirectly is added, the total is about 6.5 percent of the funding available.

In the Bureau of Educational Personnel Development, nine community colleges received direct grants under Part D of the enabling legislation. A report from the Office of Education recently made this observation:

"Part F received no appropriation in fiscal year 1969. Approximately thirty other in-service training projects developed by four-year institutions or local school systems include participants from or persons teaching in junior or community colleges, though the training is not necessarily a cooperative venture with a junior college directly. . . . Under B-2 of EPDA, the State Grants program, most states are likely to be working with junior and community colleges, especially in the training of classroom aides. However, the states are still in the process of negotiating their projects and have not submitted to us details on exactly how the funds will be dispersed."

All these figures point to a lack of sensitivity to the special needs of community colleges in the federal government. The problem is further compounded by a lack of adequate funding. Defense spending and the war in Vietnam cast a long shadow over all domestic priorities crippling the budget of the Office of Education and further darkening the prospects for fulfilling our commitments. We have confused our priorities. We should reverse the trend. The total cost of the anti-ballistic missile system would more than fully fund the entire education authorization; this kind of investment would certainly strengthen the fiber of an education system which is the best deterrent to the insanity of war games and arms races.

The problem extends beyond money. As Lewis Bender, director of the Bureau of Community Colleges in Pennsylvania and chairman of the National Council of State Directors of Community-Junior Colleges, said: "It deals with an honest error of having focused on elementary and secondary or graduate and research—trusts resulted from crises confronting our nation. Now our crisis is internal (not Sputnik) and is a human crisis, not scientific or technological."

CLOSING THE OPPORTUNITY GAP

The urgency of these imbalances prompted the introduction of the Comprehensive Community College Act of 1969. It is now time to close the opportunity gap in higher education. The early support of more than a third of the Senate¹ is sufficient mandate to all of us to take our federal responsibilities to this

¹ Edward Brooke (Massachusetts); Clifford Case (New Jersey); Frank Church (Idaho); Alan Cranston (California); John Cooper (Kentucky); Charles Goodell (New York); Albert Gore (Tennessee); Mike Gravel (Alaska); Edward Gurney (Florida); Fred Harris (Oklahoma); Philip Hart (Michigan); Vance Hartke (Indiana); Mark Hatfield (Oregon); Harold Hughes (Iowa); Daniel Inouye (Hawaii); Henry Jackson (Washington); Jacob Javits (New York); Edward Kennedy (Massachusetts); Charles Mathias (Maryland); Eugene McCarthy (Minnesota); Gail McGee (Wyoming); George McGovern (South Dakota); Walter Mondale (Minnesota); Frank Moss (Utah); George Murphy (California); Edmund Muskie (Maine); Gaylord Nelson (Wisconsin); John Pastore (Rhode Island); Winston Prouty (Vermont);

level of postsecondary education as seriously as we have those of traditional higher and vocational education. Ten similar bills² have been introduced in the House of Representatives with equal enthusiasm and support for two-year colleges. As soon as Congress has acted on the extension of the Elementary and Secondary Education Act, I am hopeful that hearings will be scheduled on this bill. I will certainly continue to urge early hearings on this legislation.

The frustration of restoring elementary school curriculum within crumbling school buildings, the futility of retrieving the academic dropout to continue in noncareer-oriented learning experiences in secondary schools, and the flaunting of rhetoric in response to honest demands for relevance on campuses of traditional institutions of higher education have propelled community colleges to the rescue. The extent to which they will succeed depends on their own commitment to the task. But the federal government will cripple that effort if it forces community colleges to conform to the procedures, jargon, and schemes which now pave the way to federal-aid support.

Because the bill which has been introduced focuses attention on postsecondary education, some might be tempted to conclude that we want to bolster the community college at the expense of the four-year university, or the vocational school, or the secondary school. Nothing could be farther from the truth; in fact, it is precisely because we believe so strongly in these other education systems that we are calling for action on the community college.

IDENTITY AND MISSION FOR COMMUNITY COLLEGES

The Comprehensive Community College Act of 1969 gives a long overdue identity to community junior colleges. This act is designed to support the development and construction of private and public two-year, postsecondary institutions of higher learning, including two-year branch campuses of four-year universities which are comprehensive in philosophy and service to the community. The day has long passed when the federal government can afford to support an educational institution which maintains an exclusionary admissions policy and offers only an elite academic course of study. Certainly, comprehensive includes consortium schools as in Union County, New Jersey, where Union College and the Union County Vocational and Technical School merge their facilities and services to respond to the demands of the community.

Jennings Randolph (West Virginia); Abraham Ribicoff (Connecticut); Richard Schweiker (Pennsylvania); Hugh Scott (Pennsylvania); Ralph Yarborough (Texas); Steven Young (Ohio).

² H.R. 8200: Frank Thompson Jr. (New Jersey) for himself and Edward P. Boland (Massachusetts); Hugh L. Carey (New York); John H. Dent (Pennsylvania); William D. Ford (Michigan); Joseph M. Gaydos (Pennsylvania); William D. Hathaway (Maine); Augustus F. Hawkins (California); Margaret H. Heckler (Massachusetts); James J. Howard (New Jersey); Charles S. Jolson (New Jersey); Joseph G. Minish (New Jersey); Patsy T. Mink (Hawaii); William S. Moorhead (Pennsylvania); Edward J. Patten (New Jersey); Carl D. Perkins (Kentucky); H.R. 7178: James G. Fulton (Pennsylvania); H.R. 7975: Joshua Ellberg (Pennsylvania) for himself and William A. Barrett (Pennsylvania); James A. Byrne (Pennsylvania); William J. Green (Pennsylvania); Robert N. C. Nix (Pennsylvania); H.R. 8393: Henry Helstoski (New Jersey); H.R. 8754: Tim Lee Carter (Kentucky); H.R. 8935: Don Edwards (California); H.R. 10254: Richard C. Ottinger (New York); H.R. 10469: Bertram Podell (New York); H.R. 10591: Charles S. Gubser (California); H.R. 11040: John M. Murphy (New York).

The bill calls for a year of planning to give each state time to develop or update a master plan for postsecondary education. The need for planning is as critical in states that have assumed the leadership with this new level of education as it is in the states where community colleges are still in the planning phase. For example, in Illinois it is difficult to plan and set aside planning functions among the three agencies charged with this responsibility—the State Junior College Board, the Board of Vocational Education, and the Office of Public Instruction. This bill should give these kinds of groups some direction and help stimulate the development of master plans for postsecondary education. All state plans will be developed jointly at the state level with all postsecondary education agencies within the state. In keeping with the philosophy of this bill, individual community junior colleges—which should be the key planners in this effort—will give substantive direction to these plans and control the money appropriated to each state for the purpose of implementing this act. The bill specifies:

"That a State Agency, which is representative of all agencies in such State which are concerned with post-secondary education, will be the sole agency for carrying out such purpose."

Because organizational differences vary from state to state, this provision is not more specific at this time. The intention here is to ensure that the state agency will be fully responsive to community college needs. Hopefully, some direction will be given to this provision when hearings are scheduled.

These master plans will set forth a statewide plan for the improvement, development, and construction of comprehensive community colleges, including first, the development and implementation of comprehensive curriculum programs that have a special emphasis on the needs of the educationally and economically disadvantaged. These curriculums must include occupational-technical programs; career development opportunities; adult continuing education programs; community service, developmental, counseling-advising, and lower-division, university parallel programs. The percentage and relationship of these programs to each other should reflect the demands the community makes on the institution. But it seems that through the community service and counseling-advising programs, community junior colleges can provide their greatest services and thereby respond to their communities. Brookdale Community College Board policy states in part:

"Brookdale Community College is dedicated to its community—Monmouth County—and accepts the responsibility to equalize the post-high school educational opportunities for all who seek them. In fulfilling its mission of bringing higher educational opportunities within geographic and financial reach of all citizens, Brookdale Community College regards the entire county of Monmouth as its campus and all of the citizens as its student body. . . . Acceptance of this philosophical platform mandates the following operational objectives for Brookdale: To focus its educational program on the human development of the student so he increases in sensitivity and concern for his relationship with his fellow man. . . . To extend to every citizen a continuous opportunity to expand his capabilities for enjoying and adding to the productive life of his community—wherever it may be."

Every effort must be made to avoid tradition and elite pressures in determining these services. Room must be made for the concept of Chicago's skill studios; services should be made available around the clock; counseling centers should service the needs of the community—in short, creativity and

imagination should be unleashed in the colleges' services to the communities they serve.

The second emphasis of the bill is on the training of faculty, administrators, counselors, and other necessary personnel. The role of the faculty, counselors, and other staff at community colleges is critical to their success. Community colleges must find new ways to recruit and hold their teachers and administrators. The role of teachers must be redefined. Tutors from the business community, on a lease-time arrangement, should contribute to the classroom experience. The full resources of the community should be part of the learning process, and the classroom materials should extend to the full community. Miami-Dade Junior College, Florida; Junior College District of St. Louis, Missouri; and Orange Coast Junior College District, Costa Mesa, California, are among the institutions which are aware of this problem and have unleashed their creativity and imagination to solve this issue.

The community college will undoubtedly be a catalyst where change comes slowly in demanding a new concept of the teacher as a resource person and partner in learning. Certification and tradition in colleges of education have crippled progress in education, but community colleges are providing pressure for change as they have in Kansas where the educational training institutes are working closely with community college personnel and instructors.

The third emphasis is on research to be carried out in such colleges to increase their effectiveness and to provide data for future development. Hopefully, this provision will encourage rethinking among those who allot the research dollar in state legislatures and state departments of education. For too long, community junior colleges have been the beneficiary of "expert" advice from institutions which have failed to solve their own problems. This provision would certainly not rule out a consortium effort to work on these problems, but the hope is to tap and bring community junior colleges' creativity and approach to these perennial problems which existing research has failed to resolve.

In addition to these primary emphases, state plans will establish priorities for the following objectives:

1. If not already tuition-free to state residents, such colleges will be made tuition-free as soon as practicable (or at least reverse the disquieting trend toward increased tuition) or provide adequate financial-aid programs. The intent is to make these institutions available to all and not to exclude anyone who cannot afford to continue his education.

2. Policies and procedures will be set forth designed to assure that federal funds made available under this title will be used so as not to supplant state or local funds, or funds of comprehensive community colleges, but to supplement and, to the extent practicable, to increase the amounts of such funds that would, in the absence of such federal funds, be made available for the purposes of this act.

3. Fiscal control and fund-accounting procedures as may be necessary to assure proper disbursement of and accounting for federal funds paid to the state (including such funds paid by the state to comprehensive community colleges) under this title will be included.

4. Interstate cooperation in carrying out programs pursuant to this bill will also be encouraged.

It will not be sufficient that the state plan be comprehensive. The final form which this bill takes will include a provision to ensure that community colleges retain and maintain local authority and responsibility for carrying out their services to the community. The independent institutions which are striving for a comprehensive mission should be identified in the state plan and nourished

in the spirit of the bill. The danger of conformity is strong for community colleges as they mix with other institutions of higher education. It could be equally strong and devastating if these same pressures require the community colleges to conform to state jurisdiction alone.

A BUREAU OF COMMUNITY EDUCATION

For too long we have been treating education as a series of movements—forgetting the symphony. We have spent millions of dollars and uncounted man-hours to build partitions between grades, between levels of learning, and even between geographical designations of these levels. In all this typing, categorizing, and dividing, we have done an injustice to the long-term continuity of real education. When someone moves out of an assigned educational level—by graduating, failing, or dropping out—he seldom gets back. Nowhere in the scheme of things is there an educational system designed simply to serve people who want to learn—and not simply on the basis of birthplace, accumulated grade-point average, or prepschool lineage. The community college can, if it is given help, fill the void. We want to strengthen community colleges, because without them, the other forms of education will continue in hapless cycles of frustration to educate by drawing perimeters around the chosen few. Therefore, under the terms of this bill, a Bureau of Community Education will be established at the Office of Education.

The new bureau, of course, should not be limited to this legislation. The variety of programs that have been arbitrarily or unintentionally misplaced in other bureaus could find new flexibility in this bureau. Those who would resist such an organization should examine the justification for existing bureaus and compare that rationale with the increasing pressures for community control, relevance, continuity, participation, and dialog from students, parents, teachers, and community leaders and planners. Properly structured and developed with the same spirit that it is offered, the Bureau of Community Education could be a catalyst for the change education so desperately needs.

In addition to this administrative provision, the legislation calls for the commissioner of education to appoint a National Advisory Council on Comprehensive Community Colleges. An ad hoc Committee on Community Colleges has already been established to help direct the Congressional interest in this legislation.³ This committee is a prototype of the National Advisory Council. These are men dedicated to the concept of com-

³ Milton Bassin, president, New York City Community College, Brooklyn, New York; Lewis W. Bender, assistant commissioner for higher education, State Department of Public Information, Harrisburg, Pennsylvania; James Broman, executive director, Illinois Association of Community and Junior Colleges, Chicago, Illinois; James Colston, president, Bronx Community College, Bronx, New York; Joseph Cosand, president, Junior College District of St. Louis, Clayton, Missouri; Patrick J. Distasio, director, Center for Community Development, Miami-Dade Junior College, Miami, Florida; Paul Elsner, state director, Division of Community Colleges, Denver, Colorado; Ed K. Erickson, president, Seattle Community College, Seattle, Washington; William Flanagan, president, Rhode Island Junior College, Providence, Rhode Island; Richard Gott, director of O.E.O. Demonstration Projects, AAJC, Washington, D.C.; Richard Greenfield, president, Mercer County Community College, Trenton, New Jersey; Ervin Harlacher, president, Brookdale Community College, Lincroft, New Jersey; Norman C. Harris, professor of vocational education, Department of Higher Education, University of Michigan, Ann Arbor, Michigan;

munity colleges. Their advice, judgment, and insight has already contributed immeasurably to the development of this legislation.

The National Advisory Council will be responsible for establishing criteria which the commissioner of education will use in evaluating the master plans and designating procedures for the administration of this act. It is not enough to rely on textbook intrigue and traditional approaches to administration. The council will bring the experience, sensitivity, and creativity needed at the federal level in handling community junior colleges.

Finally, the commissioner will make an investigation and study of all federal programs assisting community colleges in order to determine which of such programs provide assistance which is a duplication of assistance provided pursuant to this act, and report to Congress, not later than six months after the date of enactment of this act, his recommendations—including any necessary legislation—for terminating such duplication.

Our plan is for a one-stop service station for community colleges. Most of them do not have the manpower or resources to pound the pavements in search of grants. This service and centralization will minimize the effort.

The remarkable Danish scientist-humanist Piet Hein sums up our educational quandary in an aphoristic little poem called a grook:

"Double-doors are justified because they're comfortably wide. Therefore, you only half undo 'em; and therefore nothing can get through 'em."

America cannot afford to block the doors to education. Comprehensive community colleges can be the key to open the door and show the way to full educational opportunity for all Americans.

UNDERGROUND NUCLEAR BOMB TESTS IN ALASKA

Mr. GRAVEL. Mr. President, I ask unanimous consent to have printed in the RECORD my statement before the Committee on Foreign Relations on September 29, 1969. The statement relates to the series of underground nuclear bomb tests to be made in Alaska.

There being no objection, the state-

Ellis F. Hartford, dean, Community College System, University of Kentucky, Lexington, Kentucky; Carl Heinrich, director of college accreditation, Kansas State Department of Education, Topeka, Kansas; B. Lamar Johnson, Department of Higher Education, U.C.L.A., Los Angeles, California; Francis Keppel, president and chairman of the board, General Learning Corporation, New York, New York; S. V. Martorana, vice-chancellor, New York State University, Albany, New York; Lloyd E. Messersmith, executive director, California Junior College Association, Sacramento, California; Harry Miller, president, Keystone College, La Plume, Pennsylvania; Bill J. Priest, chancellor, Dallas County Junior College District, Dallas, Texas; Peter Scarth, Educational Systems Corporation, Washington, D.C.; Walter Sindlinger, Department of Adult and Higher Education, Columbia University Teacher's College, New York, New York; Oscar Shabot, president, Chicago City College, Chicago, Illinois; Dale Tillery, Center for Research and Development in Higher Education, University of California, Berkeley, California; James L. Wattenbarger, Institute of Higher Education, University of Florida, Gainesville, Florida; Everett Woodman, president, Colby Junior College, New London, New Hampshire.

ment was ordered to be printed in the RECORD, as follows:

STATEMENT BY U.S. SENATOR MIKE GRAVEL BEFORE THE SENATE FOREIGN RELATIONS COMMITTEE ON SENATE JOINT RESOLUTION 155, SEPTEMBER 29, 1969

THE SITUATION

The Atomic Energy Commission is preparing for a series of underground nuclear bomb tests in Alaska, at Amchitka Island in the Aleutian Chain. The first test, named MILROW, is due to go off Thursday, October 2. It will be one of the four largest underground explosions ever attempted by the United States, approximately one megaton. An underground test was held at Amchitka Island in October 1965. Thursday's test will be twelve times stronger. It has been termed a calibration test, designed as a forerunner of tests that may go up to five megatons.

IMPACT ON OUR FOREIGN RELATIONS

Japan and Canada have formally expressed their concern to our government regarding the forthcoming tests. The notes have not been made public, but our State Department says that both nations have served notice that they will hold the United States responsible for any lives lost or damage incurred as a result of the tests.

There are three principal areas of concern.

(a) The test could trigger large earthquakes, which not only might propagate eastward to populated areas of the United States, but might well generate devastating tidal waves, technically called tsunami waves, which could smash into the Canadian, Russian or Japanese coasts.

A tsunami is a submarine wave which typically travels at speeds of 500 miles an hour. When such a wave hits a sloping shore it piles up. For instance, tidal waves 55-foot high have crashed into Hawaii.

Tsunami waves hit Hawaii in 1946, 1952, 1957, 1960 and 1964. All but the 1960 tsunami were generated in the Aleutians. The 1960 tsunami wave that hit Hawaii was created from an earthquake in Chile. Sixty-one Hawaiians died in that tragedy. The 1946 tidal wave took 173 lives and caused \$25 million in property damage. The 1964 Good Friday Alaska earthquake killed thirteen people in Crescent City, California, 2,000 miles away, and also caused \$12 million in property damage.

No one yet understands why some earthquakes produce tsunamis and others do not.

(b) The bomb test could leak radioactive debris, particularly through submarine earthquake faults whose locations are not known, and cause a mass pollution of Pacific Ocean fish and other marine life, some of which are protected by treaties to which the United States is a party.

Even when diluted, ocean contamination is amazing. The atomic tests in the South Pacific contaminated fish—especially salmon and tuna—so severely that by 1966 and 1967 those populations which consumed a higher than average amount of fish, people such as the Japanese, Scandinavians, Lapps, and the Eskimos, registered astonishing body-burdens of radioactive iron-55.

(c) The bomb blasts under Amchitka could also leak radioactive debris through venting into the air—an event which occurs at the Nevada test site more frequently than most people realize.

RELATIONSHIP BETWEEN UNDERGROUND TESTS AND EARTHQUAKES

On January 19, 1968 the Atomic Energy Commission exploded an 800-kiloton device in Central Nevada. The test was called "Faultless." A film of that explosion, recorded on a high speed motion picture camera aboard a helicopter, shows a long fault opening within seconds of the explosion, and run-

ning almost through ground zero. At the point of the greatest movement, the vertical displacement on the fault was 15 feet. Giant cracks in the earth extended three miles long. Following the "Faultless" test, northern Nevada experienced several earthquakes of magnitude 4.0 and 5.0.

Authorities now agree that underground nuclear explosions can trigger earthquakes.

What is becoming clear, moreover, is that most natural earthquakes are themselves a series of triggered events. For instance, the great Alaska earthquake of 1964 began with a shock of about 6.5. It snow-balled to an earthquake registering 8.4, the largest ever recorded on the North American continent. Two weeks ago on September 11, the Amchitka area itself experienced an earthquake, which began with a shock of 5.2 and triggered itself into 6.6.

Dr. James Brune, one of the AEC's principal earthquake consultants has said: "In many cases larger earthquakes may be considered successions of triggered events rather than smoothly propagating ruptures."

Frank Press is another eminent authority who agrees. He says, "Some recent results suggest that great earthquakes consist of a super-position of smaller tremors with magnitude 6.0-7.0, triggered in succession like a line of falling dominoes."

The Atomic Energy Commission's own material now says that earthquakes follow nuclear detonation. The AEC concedes that nuclear explosions near earthquake faults are particularly hazardous. "The Amchitka test area," the AEC literature says merits "special attention because it is located near one of the earth's most seismically active regions. Inasmuch as earthquake mechanisms are not completely understood, no absolute statements can be made about the possibility of triggering an earthquake of large magnitude in this area."

WARNINGS FROM QUALIFIED SCIENTISTS

The Aleutian arc is one of the most seismically active areas in the world. It is extremely unstable. No one can say for certain that "Milrow" will not become the triggering mechanism for a larger earthquake or that it will not result in a large vertical underground displacement, the prime cause of tsunami waves.

The danger has not gone unnoticed. A special panel headed by Dr. Kenneth Pitzer, President of Stanford University, a former Research Director for the Atomic Energy Commission, and a former member of the President's Science Advisory Committee, has conducted an independent evaluation of the United States underground nuclear testing program. That committee's report was completed in November 1968, but as of today it still has not been released by the AEC or the White House. Dr. Pitzer, on April 14, after having full access to all classified AEC studies, urged that large underground tests in Central Nevada and the Aleutians be delayed pending an independent inquiry by qualified scientists not now under contract to the Atomic Energy Commission or its contract agencies.

Dr. Pitzer said: "I believe the risk that a damaging earthquake might be triggered deserves a much more substantial public hearing before large tests are held at the new sites in Central Nevada and the Aleutian Islands, which are seismically active areas. Then Congressmen, Governors, and other responsible officials, as well as the interested public can form their own judgment, balancing this and any other risks against the need for tests, or the extra costs of moving to a non-seismic location.

No one knows precisely where the great Aleutian fault lies. It is believed to pass within 30 to 100 kilometers of the Amchitka test site. Seismologist James Brune of Cal Tech has said: "I would think that scientists

would be very hesitant to fire off a large nuclear explosion 30 kilometers from the San Andreas fault. One hundred kilometers would be better. But I'd still be a little worried about it."

Dr. Frank Press, Chairman of the Department of Earth and Planetary Sciences at the Massachusetts Institute of Technology and perhaps the most acknowledged expert in this field, says that Amchitka lies in a zone perhaps ten times more seismic than Nevada. That fact, he says, and the fact that the large explosions being planned are without precedent, suggests that previous experience may not be pertinent. About the calibration test planned for Thursday, October 2, Dr. Press says: "Unfortunately, a series of tests with progressively increasing yields is a precaution of uncertain value if the instability mechanism which triggers an earthquake has a threshold.

"For these reasons," Dr. Press continues, "I would associate a definite, though small risk with large nuclear explosions in seismic belts like Amchitka. The very small possibility of very large damage must be balanced against national security needs. In my opinion, the need to test these large yields must be very compelling to justify the risk.

The AEC's own earthquake consultant, Wendell Weart from the Sandia Laboratory, said in 1969, "There is obviously some point in yield (test size) beyond which there would be danger . . ." and in May 1968, he said, "Further understanding is necessary to permit extension of present observations to higher yields and especially to other, perhaps more tectonically active test sites."

THE TSUNAMI WAVE DANGER

The Atomic Energy Commission says that a submarine earthquake of any magnitude greater than 7.0 would likely give rise to a perceptible wave. The AEC says that a long range tsunami of potentially destructive proportion is almost a certainty from a submarine earthquake of a magnitude greater than 7.5.

In fact, the 1946 tsunami which devastated Hawaii was created by a 7.4 earthquake in the Aleutians.

The explosion planned for Thursday will cause a shock estimated at 6.5. Further tests will be of greater intensity. Let me emphasize that a 6.5 underwater shock is the expected result. No one really knows.

Russian territory is only 400 miles from Amchitka. Tokyo is about 950 miles away. Honolulu is 700 miles. Anchorage is 1400 miles.

Let me repeat . . . Crescent City was 2,000 miles from the center of the 1964 Alaska earthquake . . . 13 people were killed.

DANGERS OF RADIOACTIVITY

At the Nevada Test Site, where no release of radioactivity is ever expected, at least 10% of the tests unexpectedly leak. The percentage would be considerably higher if on-site leaks were included. But they are not publicly enumerated. In four consecutive months in 1969 alone at least three tests at the Nevada Test Site have leaked. The Atomic Energy Commission did not expect radioactivity from the 1965 test on Amchitka Island to leak for hundreds of years. But radioactivity surfaced in at least two small fresh water ponds on Amchitka only a few months after the test.

Testing underground does not lessen the amount of radioactivity which an explosion creates; it simply changes the initial routes which it takes, as it begins its almost endless re-circulation in the air, water, soil and food-chains of this planet.

There are six ways in which radioactivity can surface from an underground test:

1. Buried tests contaminate underground water.
2. Buried tests can "vent" radioactivity into ocean water.

3. Buried tests can "vent" into the air.

4. Excavation tests always release radioactivity into the air, soil, rivers, and oceans.

5. Oil, gas, and ore extracted by nuclear blasts will contain residual radioactivity when they are distributed for public use. The most severely contaminated gas is being burned off into the atmosphere.

6. Radioactivity might be released at all levels by earthquakes renting the earth at ground-zero.

Although the Atomic Energy Commission apparently has assumed that the oceans are large enough to dilute the radioactivity forever beyond recognition, we are learning that the initial dilution is countered by the ability of marine life to concentrate it. Fish have concentrated ten to twenty thousand times the radioactivity level of water in which they have been found. Seaweed, an important harvest in many Pacific Rim nations, collects radioactive iodine, a major product of nuclear fission.

Substantial radioactive leakage from the bomb tests under the ocean around Amchitka could cause significant biological harm to the food chains of the North Pacific and to our Pacific coast fisheries, since the Japanese current flows from West to East.

Radioactivity could contaminate the waters around Amchitka via existing underwater earthquake faults. We do not know where these faults are.

ATOMIC ENERGY COMMISSION CREDIBILITY

The AEC's press release of September 24, 1969 announcing the Milrow test is itself evidence that the test is a risk. In its press release the AEC says that no radioactivity is expected to reach the atmosphere, no radioactivity is expected to reach the sea, no serious damage is expected to occur to fish and wildlife in the area, ground motion is not expected to be felt at great distances, the after-shocks are expected to be considerably smaller in seismic magnitude than the direct shock of the explosion itself.

The AEC says further in its statement that "It is most unlikely that the explosion will trigger an earthquake of magnitude as large or larger than the initial seismic shock."

The Atomic Energy Commission has not been infallible in the past. Some examples:

At the Nevada Test Site, where no release of radioactivity is expected, at least 10% of the tests unexpectedly leak. The percentage would be higher if on-site leaks were included. But these are not publicly enumerated. In four consecutive months in 1969 alone at least three tests at the Nevada Test Site have leaked.

The Atomic Energy Commission did not expect radioactivity from the 1965 test on Amchitka Island to leak for hundreds of years. But radioactivity surfaced in at least two small fresh water ponds on Amchitka only a few months after the test.

The AEC did not expect strontium-90 to accumulate in milk.

The AEC did not expect its 1964 test in Mississippi to cause \$600,000 in property damage.

The AEC did not expect the 800-kiloton blast detonated in January 1968 in central Nevada to rock Salt Lake City and San Francisco as well as Las Vegas.

The AEC did not expect underground nuclear bomb tests to trigger earthquakes. But now it's clear they do.

The AEC does not expect anything to go wrong at Amchitka. But in its own release on September 24, it sets the stage to shirk liability with the following statement:

"It is most unlikely that the explosion will trigger an earthquake of magnitude as large or larger than the initial seismic shock.

"It must be recognized, however, that the Aleutians are in an area where earthquakes occur often; thus, a local natural earthquake (completely unrelated to the test explosion) could occur in the period following the test."

THE QUESTION OF SECRECY

The only independent evaluation of the underground testing program conducted in recent years, the study headed by Dr. Pitzer, has been kept secret for nearly a year. We do not know what the report recommends, but we do know that Dr. Pitzer personally has serious reservations about both the classification of so many AEC documents as secret, and about the continuation of our underground testing program without more knowledge. Indeed, Dr. Pitzer first recommended the independent commission approach embodied in S.J. Res. 108 and S.J. Res. 155. Even if the Pitzer Report were released today, there would be no time for public evaluation of its message before Thursday's explosion. We have had no explanation of why the AEC has withheld the report from public scrutiny.

Also, a review of recent history leaves an unmistakable impression that the Atomic Energy Commission has been less than candid in its public assessment of risks.

An AEC news release dated January 23, 1964 said: "Four authorities on ground shock, replying to questions posed by the AEC have concurred in the opinion that shock waves from underground nuclear testing—even if explosive forces should considerably exceed any detonation which has been conducted at the Nevada Test Site—offer little or no hazard to public safety . . ."

"They agreed that it is not possible to cause a natural earthquake by the underground detonation of nuclear explosions.

"They said that while it was possible theoretically, that a natural earthquake—already poised to occur—could be triggered by an underground nuclear detonation, this would require such unusual circumstances that the possibility is extremely remote."

That view was widely held in 1964. But three large tests, "Faultless," "Boxcar" and "Benham" changed scientific judgment on this question. Nevertheless, the AEC reissued its 1964 statement on August 18, 1967, and again in testimony in August of 1968 before the Joint Committee on Atomic Energy.

Based on information it alone has, and refuses to disclose, the AEC has determined that the importance of the Amchitka test overrides the potential dangers: earthquakes, sea waves, radioactive leakage either into the air, or water, our relationships with Pacific Rim nations which have already expressed their concern.

SUMMARY

A number of issues are before us. We must be concerned with the impact of further underground testing, particularly the large tests planned for Amchitka Island, on the relationship the United States has with other nations in the Pacific area. We must be concerned with any potential violations of existing international treaties or agreements. We must be aware of the potential danger to the life and property of United States citizens as well as those of foreign countries. And finally, and perhaps most importantly, we must question whether the Atomic Energy Commission is sufficient unto itself to decide these questions without a public airing of the facts and factors involved.

The only independent evaluation made of the underground testing question, Dr. Pitzer's report, has been withheld from the public for a year. We in policy making positions, who must answer for the results of such activity, and the public generally, must assume the worst when such a vital report is kept secret for so long.

I believe that too many questions involving too many areas of our domestic and international life are affected by our underground weapons testing program to continue that program without independent evaluation or public awareness.

My resolution would create a fifteen-member commission appointed by the President

to undertake a thorough evaluation of our underground weapons testing program. This commission would study questions of seismic disturbances, and ecological contamination. It would review the implications of further testing on our treaty obligations and foreign policy. It would also review the liability of the United States for foreign lives lost or damage to private property as a result of U.S. underground weapons testing. The Commission would report to the President and to the Congress within a year.

While it cannot be written into this resolution, I believe that such a study should go hand-in-hand with an increased effort on the part of the United States to discover the secrets of subterranean movement. The

value of such a study would be incalculable in increasing our knowledge of the forces at work beneath the earth, as well as providing a sound basis for judgment on further underground tests. The day that we know why earthquakes are caused and how to anticipate them, we will have the ability to save countless lives and protect an incalculable amount of wealth and property.

Further, I would hope that this study would be the occasion for initiating the first inventory of the earth's total radioactive contamination. No such inventory now exists. We do not know to what degree man's experimentation with nuclear energy has contaminated his total environment.

I would urge further, Mr. Chairman, that

this committee ask the President for a delay in Thursday's Amchitka test so that the implications may be properly evaluated by the Congress and so that the public review concept embodied in S.J. Res. 155 can itself be given proper consideration by the executive and legislative branches of the government before the underground atomic testing program proceeds any further.

I have appended to this statement general exhibits that I hope will prove useful to the committee.

Again, Mr. Chairman, I deeply appreciate your courtesy and that of this committee in calling today's hearing and the prompt consideration which you have shown for this extremely vital question.

SOME SIGNIFICANT MILITARY TESTS

[1 kiloton=1,000 tons of TNT, 20 kilotons=Hiroshima bomb, 1,000 kilotons=1 megaton]

Remarks	Name	Date	Location	Depth/rock	Yield
1st test in Nevada.	"Able"	Jan. 27, 1951	Nevada test site	1,060 feet in air	1 kiloton.
World's 1st H-bomb test.	"Mike"	Oct. 31, 1952	Eniwetok	Surface	10.4 megaton.
Our biggest H-bomb test.	"Bravo"	Feb. 28, 1954	Bikini	do	15 megaton.
1st underground test.	"Ranier"	Sept. 19, 1957	Nevada test site	790 feet in tuff	1.7 kiloton.
Voluntary test moratorium late 1958—September 1961.					
Test suggests triggered quakes.	"Hardhat"	Feb. 15, 1962	Nevada test site	943 feet in granite	5.9 kiloton.
Limited Test Ban Treaty signed Aug. 5, 1963.					
1st test to rock Las Vegas.	"Bilby"	Sept. 13, 1963	Nevada test site	2,413 feet in tuff	200+ kiloton.
Biggest leak: million curies.	Data unavailable	Mar. 13, 1964			
Vela detection test.	"Salmon"	Oct. 22, 1964	Mississippi	Cavity in salt	5 kiloton.
1st test in Alaska: radiation leaked: seismic mag=6.2.	"Longshot"	Oct. 29, 1965	Amchitka	2,300 feet in andesite	80 kiloton.
Las Vegas rolls again	"Greeley"	Dec. 20, 1966	Nevada test site	Data unavailable	850 kiloton.
Las Vegas swings, Salt Lake City jolted, San Francisco rolls; earth splits, rises 15 feet at ground-zero; giant cracks extend 3 miles; earthquakes of mag. 4.0-5.0 followed. 1st test at new site. Holes to accommodate multimegaton tests being drilled.	"Faultless"	Jan. 19, 1968	Central Nevada	3,200 feet	800 kiloton.
1st underground megaton blast; seismic mag=6.4; fault displaced by 3 feet; faulting for 5 miles, triggers thousands of after shocks.	"Boxcar"	Apr. 26, 1968	Nevada test site	3,800 feet	1.2 megaton.
Deeper megaton test; approximately same effects as "Boxcar." Until it went off, AEC did not know if it would be larger or smaller than "Boxcar."	"Benham"	Dec. 19, 1968	do	4,600 feet in porous volcanic tuff	1.1 megaton.
3d megaton test.	"Jorum"	Sept. 16, 1969	do	3,800 feet	A megaton.
Calibration test for multimegaton tests at Amchitka.	"Milrow"	Oct. 2, 1969	Amchitka	4,000 feet	Do.

EXHIBIT B

EARTHQUAKES AND THEIR MAGNITUDES

The magnitude of an earthquake measures the energy of its seismic waves. For convenience, a logarithmic scale is used: that is, magnitude 4.0 is ten times the energy of magnitude 3.0; magnitude 5.0 is ten times the energy of magnitude 4.0; and so on.

Underground explosions, which also produce seismic waves, can be assigned magnitudes just like earthquakes. Underground

nuclear explosions seem to put about 0.1% of their energy into seismic form. An underground nuclear blast of 1 kiloton would have a magnitude of slightly less than 5.0. A one-megaton explosion produces a magnitude of about 6.5. However, the seismic magnitude of underground explosions varies widely, depending upon the kind of surrounding rocks. Soft rock attenuates seismic energy far more rapidly than a hard rock like granite.

According to the AEC, additional tests during this period vented "on-site."

An "off-site" leak is one which can be detected at locations outside the Nevada Test Site, whereas an "on-site" leak is one which becomes so diluted before it passes the borders of the Nevada Test Site, that it cannot be detected outside.

Dilution, of course, does not eliminate the radiation; a curie is a curie, no matter how fast the radioactive substance is diluted.

Since many radioactive substances last for generations and even thousands of years, every leak ("off-site" or "on-site") adds to the planet's total radioactive pollution.

According to the AEC in April 1969, "It is current practice to bury nuclear devices sufficiently deep that no radioactive debris is expected to be released to the atmosphere."

If the rate of "on-site" venting in 1969—at least three vents in four months—is typical, then between August 5, 1963, and March 1, 1969, forty-seven such leaks occurred in addition to the 14 announced "off-site" leaks. If so, the percent of contained tests which unexpectedly broke loose is 33%, not 9%.

The AEC says that no test the size and depth of "Milrow" has ever vented; but only three such tests have ever been conducted, which hardly makes a sample adequate from which to predict about "Milrow."

According to the AEC, three out of ten significant leaks at the Nevada Test Site occurred via earthquake faults or fissures. Since the locations of the countless faults on and around Amchitka are not well known, the chance of venting there may be greater than at the Nevada Test Site, which has been under geological scrutiny for 18 years.

SOME HISTORIC EARTHQUAKES OF INTEREST

Date	Place	Magnitude	Depth (miles)	Estimated deaths	Property damage
1737	Calcutta, India			300,000	
1906	San Francisco	8.3		700	\$800,000,000.
1920	Konsu, China			180,000	
1923	Japan	8.3		100,000	Vast.
1933	Long Beach, Calif.	6.3	5-6	120	\$60,000,000.
1960	Chile	8.4		1,000	\$600,000,000.
1960	Agadir	5.7	1-2	12,000	Total at Kasbah.
1962	Iran	7.5		12,000	
1964	Skopje, Yugoslavia	5.4	8	1,000	
1964	Alaska	8.4	12	125	\$311,000,000.
1964	Niigata, Japan	7.5	24	25	\$800,000,000.
1965	Seattle	5.75	35	6	\$800,000.
1965 ¹	Amchitka	7.5-8.0			
1969 ²	Amchitka	6.6			

¹ Comparable in depth to planned multimegaton tests in Nevada and Alaska.

² This quake began with a shock of 6.5—which is the direct seismic punch delivered by a 1 megaton bomb—and snowballed to magnitude 8.4.

³ Largest earthquake in the world during 1965.

⁴ Sept. 11, 1969; began with quake of magnitude 5.2, triggering up to 6.6.

EXHIBIT C

THE VENT RECORD

September 15, 1961, to September 15, 1962: 17 out of 46 tests vented.

August 5, 1963¹: Limited Test Ban Treaty Signed.

March 13, 1964¹: the biggest off-site leak ever.

January-June 1965¹: 3 out of 16 tests vented off-site.

1966¹: 4 out of 40 tests vented off-site.

Including April 25, 1966¹: low-yield "Pin-stripe".

1967¹: 2 out of 27 leaked.

1968¹: 1 out of 33 leaked off-site.

Including January 18, 1968¹: low-yield "Hupmobile."

March 1, 1969¹.

April 30, 1969: low-intermediate (20-200 kilotons vented. Second one this size.

June 12, 1969: low-yield vented.

August 27, 1969: low-yield vented, not off-site.

¹ Excluding Plowshare and on-site leaks, 14 out of 171 tests vented "off-site."

THE PROPOSED REVENUE SHARING ACT OF 1969

Mr. BAKER. Mr. President, on September 23 I introduced on behalf of my-

self and 32 cosponsors S. 2948, the Revenue Sharing Act of 1969. This bill was recommended to the Congress by President Nixon and is designed to require the regular distribution of a specified portion of the Federal individual income tax to the States primarily on the basis of population with virtually no conditions attached.

Under the terms of this bill a portion of the money allocated to each State will be required to be distributed to all general purpose local governments. The amount that must be distributed to local governments will be the proportion of locally raised general revenues compared to total State and local revenues, and the amount which an individual unit of general local government will receive is that percentage of the total local share that its own revenues bear to the total of all local government revenues in the State.

In analyzing the terms and provisions of this bill, some observers have rushed to the conclusion that such a distribution procedure to the local governments rewards the wealthy suburb at the expense of the central city. This is, however, simply not a valid generalization. There is no evidence to support a contention that suburban governments raise more revenues per capita than urban governments. In fact the reverse is true in many specific instances.

I ask unanimous consent that two tables which have been prepared on this question be printed in the RECORD.

There being no objection, the tables were ordered to be printed in the RECORD, as follows:

Some urban-suburban comparisons—revenues, 1966-67; population,¹ 1960

[General revenues own sources: per capita]

1. Baltimore	\$232.12
Montgomery County	\$204.48
2. Seattle	114.87
Mercer Island	41.36
3. San Francisco	300.15
San Mateo	86.75
Palo Alto	140.76
4. Chicago	106.22
Evanston	99.34
Cicero	63.50
5. Boston	262.18
Cambridge	237.50
Brockton	214.50
6. Detroit	126.63
Ann Arbor	100.63
Grosse Pointe Farm	94.89
Dearborn	127.69
7. Minneapolis	101.95
St. Paul	114.04
Edina	134.28
Minnetonka	43.50
8. New York	372.78
Scarsdale	167.97
Mount Vernon	112.74
9. Cleveland	100.53
Cleveland Heights	66.78
Shaker Heights	101.59
10. Newark	218.34
Tenafly	100.74
Princeton	84.27
Paramus	125.27
11. Philadelphia	161.55
Penn Hills Township	39.35
Haverford Township	37.75
Upper Darby Township	47.25

¹ Current population would generally be much higher for suburbs than for cities when compared to 1960.

² Both 1967 population.

All cities: General revenues own sources, 1967-68 per capita amounts

Population size:	
1,000,000 or more	\$255.95
500,000-999,999	178.11
300,000-499,999	138.79
200,000-299,999	130.14
100,000-199,999	133.11
50,000-99,999	124.11
Less than 50,000	78.74

AMCHITKA TESTS

Mr. NELSON. Mr. President, grave concern has been expressed about the wisdom of the Atomic Energy Commission conducting underground nuclear tests on Amchitka Island in Alaska, especially in light of the questions that have been raised—and not yet answered—about the dangers from earthquakes, tidal waves, radiation leakage, and major environmental damage as a result of the tests.

Rather than go ahead with the tests—the AEC is planning the first one tomorrow—I believe it would be by far the wiser course to delay until an independent commission could undertake a thorough review of our underground nuclear testing program and its effects on the environment, on our safety, and on our international relations.

The commission—which could be the Board of Environmental Quality Advisers, which is near congressional enactment, or a special Presidentially appointed commission as proposed in resolutions before Congress—would make its report and recommendations to the President, Congress, and the American public, so that a determination could be made on whether underground testing can safely continue.

I ask unanimous consent that an excellent editorial on the Amchitka tests, published in the New York Times, be printed in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

RISK-TAKING OF AMCHITKA

Despite the combined protests of scientists, conservationists, members of Congress, aroused citizens groups in three Western states and the governments of two friendly neighbors, the Atomic Energy Commission is moving ahead with plans for a one-megaton underground nuclear blast in the Aleutians tomorrow, the first of projected tests to perfect new weapons.

Some scientists fear that the explosion may trigger a very large natural earthquake in the seismologically unstable area and that there may be contamination of air and water. Conservationists are concerned about the ecological impact on Amchitka Island, site for the tests, which is a part of the Aleutian Islands National Wildlife Refuge and a stronghold of the sea otter, a species once near extinction. Alaskans, Californians, Hawaiians, Canadians and Japanese are apprehensive about the danger from quakes and tidal waves.

Congressmen have urged a postponement of the tests until an independent panel of experts can assess the potential damage. But the A.E.C., which does not deny that dangerous side effects are possible, insists that the risks are minimal and worth taking in the interest of national security.

That is a dubious proposition on two counts first, because A.E.C. scientists tend to minimize dangers in order to support their interest in further nuclear develop-

ment, and second, because the weapons the tests are designed to develop will only accelerate the arms race and thus increase international insecurity.

Supporters of the test programs argue that the Russians also are testing new weapons. This, unfortunately, is true, but it does not justify testing in this particularly uncertain area until the dangers are studied more thoroughly and objectively.

At the very least, the tests should be postponed until an independent study of the dangers can be completed and discussed. Better still, the United States should press urgently in talks with Moscow and in the eighteen-nation Disarmament Committee for an agreement to ban all underground nuclear weapons testing, or at least those large-yield tests that can be easily monitored. The Amchitka tests pose unwarranted threats to the immediate safety of people living in the Pacific basin and the long-run security of mankind.

THE AMERICAN BANKERS ASSOCIATION CONVENTION IN HAWAII

Mr. FONG. Mr. President, the American Bankers Association annual convention concludes its meetings in Honolulu today.

It is extremely significant that the American Bankers Association selected my State as its convention site at the very time that we are celebrating the 10th anniversary of our statehood.

It is my understanding that delegates to this convention are in attendance not only from the west coast, but also the Midwest, the South, and the East.

The State of Hawaii was pleased and happy to serve as host to this convention and we hope the delegates will return on many occasions.

Mr. President, I ask unanimous consent that the agenda of the American Bankers Association convention be printed at this point in the RECORD.

There being no objection, the agenda was ordered to be printed in the RECORD, as follows:

AGENDA

MARKETING-SAVINGS DIVISION GENERAL MEETING, MONDAY, SEPTEMBER 29

Presiding: Joe H. Davis, President, Marketing-Savings Division, Senior Vice President, First National Bank of Memphis, Memphis, Tennessee.

Address of the President: "What a Difference a Year Makes."

Report of Nominating Committee: Archie W. McLean, Chairman, President, The Planters National Bank and Trust Company, Rocky Mount, North Carolina.

Election and Installation of Officers.

"Bank's Future Trends—Impact on Marketing Strategy," address by Charles C. Smith, Senior Vice President, Bankers Trust Company, New York, New York.

"Savings and Time Deposits—Changes Wrought and Changes Anticipated," address by Herbert V. Prochnow, Honorary Director, The First National Bank of Chicago, Chicago, Illinois.

STATE BANK DIVISION GENERAL MEETING, MONDAY, SEPTEMBER 29

Presiding: Henry H. Pierce Jr., President, State Bank Division, President, The Union & New Haven Trust Company, New Haven, Connecticut.

Report of Nominating Committee: Russell A. Blanchard, President, Georgia Railroad Bank & Trust Company, Augusta, Georgia.

Business Meeting for 1968-69 Executive Council Members.

Entertainment for Registrants by Kamehameha School Glee Club.

FIRST GENERAL CONVENTION SESSION, TUESDAY,
SEPTEMBER 30

Presiding: President Willis W. Alexander, President, Trenton Trust Company, Trenton, Missouri.

Address of the President (Willis W. Alexander).

Address: George A. Spater, President and Chairman, American Airlines, Inc., New York, New York.

Address: Charles E. Walker, Under Secretary of the Treasury, U.S. Treasury Department, Washington, D.C.

Workshop: "How to Manage With Tight Money," sponsored by the Banking and Financial Research Committee. Moderator: Wesley Lindow, Committee Chairman, Executive Vice President, Irving Trust Company, New York, New York.

Election and installation of officers.

Remarks by the President.

Remarks: The Honorable Harry Bloom, State Bank Commissioner, Denver, Colorado.

Address: Irving H. Sprague, Director, Federal Deposit Insurance Corporation, Washington, D.C.

Address: The Honorable Donald H. Sauer, Director, Department of Financial Institutions, Indianapolis, Indiana.

Address: The Honorable Daniel K. Inouye, Senator from Hawaii.

TRUST DIVISION GENERAL MEETING,
MONDAY, SEPTEMBER 29

Presiding: Charles W. Buek, Division President and President, United States Trust Co., New York, New York (no outside speakers).

NATIONAL BANK DIVISION GENERAL MEETING
MONDAY, SEPTEMBER 29

Panelists:

James F. Bodine, Senior Executive Vice President, First Pennsylvania Bank and Trust Co., Philadelphia, Pennsylvania.

Jack T. Conn, Chairman, Fidelity National Bank & Trust Co., Oklahoma City, Oklahoma.

Carter H. Golembe, President, Carter H. Golembe Associates, Inc., Washington, D.C.
John H. Perkins, Executive Vice President, Continental Illinois National Bank and Trust Co., Chicago, Illinois.

William W. Sherrill, Member, Board of Governors, Federal Reserve System, Washington, D.C.

TUESDAY, SEPTEMBER 30

Workshop: "Plan Now For Survival," sponsored by the Monetary and Payments System Committee.

Moderator: Gerald M. Lowrie, Director of Payments Planning & Director of Automation, American Bankers Association, New York, New York.

Speakers:

John J. Cummings Jr., President, Industrial National Bank of Rhode Island, Providence, Rhode Island.

Karl Hinke, Chairman of the Board, Interbank Card Association, Buffalo, New York.

William M. Jenkins, Chairman, Seattle-First National Bank, Seattle, Washington.

William F. Murray, President, Harris Trust and Savings Bank, Chicago, Illinois.

Philip F. Searle, President, The Northeastern Ohio National Bank, Ashtabula, Ohio.

Workshop on State and Federal Legislation, sponsored by the Federal Legislative Committee (to be announced).

Entertainment for registrants by Kamehameha School Glee Club (repeat of Monday's performance).

SECOND GENERAL CONVENTION SESSION,
WEDNESDAY, OCT. 1

Presiding: President Willis W. Alexander, Report of the Executive Council.

Report of the Resolutions Committee: Archie K. Davis, Chairman, Chairman, Wachovia Bank and Trust Co., Winston-Salem, N.C.

Inauguration of Officers.

Address: K. A. Randall, Chairman, Federal Deposit Insurance Corp., Washington, D.C.

PRESIDENT NIXON'S SUPPORT OF DIRECT ELECTION

Mr. GRIFFIN. Mr. President, the President's endorsement yesterday of the direct popular vote proposal for election of the President will be welcomed by all who favor this method as the best solution to the present system, and it should help those who desire electoral reform but have not determined which course is the most practical one to follow.

The President's support is significant not only in terms of the public focus which will again be given to electoral reform but also for demonstrating the overwhelming approval of the direct election at nearly all public levels.

We have seen strong support for the direct election from the people, from State legislators, from the House of Representatives, and now from the President. The next step in the process for making this proposal a reality will be up to the Senate. Already there is more support in this body for direct election than for any other proposal. In fact 43 Senators, including myself, are now cosponsoring Senate Joint Resolution 1. Such express support indicates the difficult obstacle other alternatives would face in gaining the necessary two-thirds approval.

For the Senate to block the popular vote plan or adopt a different proposal would be tantamount to a vote against reform. This point is emphasized by the President in his statement and should be of utmost concern to all who are interested in abolishing the electoral college.

The election of the President is the most important political decision which can be made by the people of the United States, and one which affects all of them. For this reason, the Senate should be particularly cognizant of the people's wishes, and I am confident that it will be responsive.

The support of the President, I believe will aid immeasurably in achieving Senate approval and ratification by three-fourths of the States.

UNDERGROUND NUCLEAR TESTING

Mr. FONG. Mr. President, as a cosponsor of Senate Joint Resolution 155, I have joined the distinguished and able Senator from Alaska (Mr. GRAVEL) in calling for the establishment of a Commission to review the international and foreign policy implications of United States underground nuclear testing.

Because of the critical nature of this issue, I wish to bring this matter to the attention of the Senate.

Since the adoption of the Limited Test Ban Treaty in 1963, the Atomic Energy Commission has been detonating underground nuclear explosions for the peaceful use of the atom, as well as for military purposes.

In all, there have been 183 such tests from 1963 to June 1969. Nearly all of

these tests have been carried out in the AEC's underground testing area in Nevada—all but four of them. All of these 183 underground nuclear tests have been termed low-yield—1 to 20 kilotons—low-intermediate yield—20 to 200 kilotons—and intermediate yield—200 kilotons to 1 megaton.

The AEC has conducted two high-yield tests—the boxcar test last April, involving a yield of 1.2 megatons, and the Benham test last December, involving a yield of 1.1 megatons. These were the most powerful tests since the United States began underground testing some 12 years ago. Each was 50 times more powerful than the atomic blast that devastated Hiroshima in 1945.

AMCHITKA ISLAND TEST

Now, the AEC has scheduled another high-yield test of a huge bomb, to be set off on Amchitka Island, located at the western end of the Aleutian Chain—an area scientists say is one of the earth's most seismically active regions.

The Commission announced on September 24 that the Amchitka nuclear device will be exploded on October 2, that it will involve a yield of 1 megaton, that the test is designated Milrow, and that it is the forerunner of a series of much larger underground nuclear explosions scheduled on the same Alaskan island.

Mr. President, it is proper, appropriate and urgent that the Senate investigate and evaluate fully the international and foreign policy implications of this series of scheduled tests.

Already, two nations have submitted strong, formal protest notes to the United States, objecting to the Alaska tests, referring to problems of safety, of potential damage, and of liability. Japan filed its protest note on September 15, and Canada followed on September 19.

The site of the Amchitka test is only 670 miles from Soviet soil. It is only 830 miles from the Russian city of Petropavlovsk on the Kamchatka Peninsula.

These three nations may not be the only ones which may conceivably be affected by these gigantic underground explosions. All nations on the rim of the Pacific Basin, as well as those located in the Pacific Basin—such as my own State—may well suffer from the deleterious effects of these tests.

Notwithstanding the Atomic Energy Commission's strong and firm assurances that it would take "every reasonable precaution to insure that the tests cause no injury to people, either directly or indirectly, and cause no material damage either to the ecology or the manmade structures," and notwithstanding the Commission's assurances that first, there are no dangers of radioactive venting, seepage and leakage; second, there will be no direct seismic hazards; and third, measurable tsunamis are unlikely from any earthquake resulting from the tests—notwithstanding these assurances, so very little is known about the consequences of such an unprecedentedly large underground explosion, that at the very least all possible hazards which may result from the Amchitka test should be fully and thoroughly investigated in advance of the tests.

As a matter of fact, the very purpose

of this test is not to try out a new nuclear warhead, but rather to determine whether Amchitka is a safe location for weapons testing, at yields of several megatons. The 1 megaton Milrow test, which the AEC has referred to as a "calibration shot," represents in itself a tremendous increase from the only other test previously conducted on that island—an 80 kiloton "long shot" explosion in 1965.

On the whole, the AEC can rightly claim an excellent record of safety for its 180-plus tests conducted since the Test Ban Treaty. But, as the agency steeply accelerates the level of yield in its tests into the multimegaton range, an increasing number of physicists, seismologists, oceanographers, and others in our scientific community are concerned that the AEC's assurances of safety may be quite unjustified.

EMINENT SCIENTISTS QUESTION LACK OF VITAL INFORMATION

These eminent scientists have stressed how little is known about the seismic, tsunami, environmental and ecological hazards which may flow from such high-yield tests. They are concerned with the demonstrable lack of vital information necessary for any precautionary measures which could and should be taken against these hazards.

They point out that any tests of the magnitude and gravity of Amchitka conducted without such data become an entirely needless risk to the lives of countless millions and to the contamination of a huge part of our planet.

For instance, Dr. Philip Morrison, professor at the Massachusetts Institute of Technology, who was a scientist at Los Alamos from 1944 to 1946, said:

Since the unexpected venting of the Gnome shot, it has been plain that surprises remain a peril in every new test situation. It would be very unfortunate to have a radioactive venting or a peculiar degree of seismic damage at this crucial stage in diplomatic negotiations.

Four biological scientists at Washington University, St. Louis—including the chairman of the scientific division of the Committee for Environmental Information—"urgently" requested a moratorium and an "independent" study of the hazards of high-yield explosions.

Many scientists agree that of all the possible dangers, the ones involving the largest number of unknowns and uncertainties are the earthquake and the tsunami hazards.

In a pamphlet issued by the Commission in April 1969, called "The Safety of Underground Nuclear Testing," the AEC attempted to discount any concern over any ground motion induced by underground nuclear detonations; with respect to tsunamis, the report said:

The chance of the proposed Amchitka tests generating a dangerous tsunami through a triggered earthquake appears to be negligible.

But in the very same publication the AEC appears to contradict these assurances. At one point the report makes this statement:

At a particular location, the ground motion resulting from an explosion depends not only on the yield and the distance of the

location from the site of the explosion, but also on the nature of the medium in the vicinity of the explosion, the structure of the earth's crust between the explosion site and the location in question, and the surface material at the locality. (Emphasis supplied.)

Then, at a later point, the report goes on to say:

The Amchitka test area merits special attention because it is located near one of the earth's most seismically active regions. Inasmuch as earthquake mechanisms are not completely understood, no absolute statement can be made about the possibility of triggering an earthquake of large magnitude in this area. (Emphasis supplied.)

Thus, it would appear that, by their own statements, the Atomic Energy Commission clearly admits of the extreme danger and the high risks involved in the Amchitka tests.

For, although no large earthquake is known to have originated on Amchitka Island itself, the Aleutians are undeniably part of the circum-Pacific seismic belt, and one of the most earthquake-prone areas on earth. The Rat Island earthquake which occurred on February 4, 1965, originated only 20 miles south of Amchitka, and it was the largest one to occur that year anywhere in the world.

NEW EARTHQUAKE THEORY

Contributing to the concern that a high-yield underground nuclear explosion might trigger an earthquake of extremely large magnitude in the Aleutians is the explanation some leading seismologists are offering about the origin and nature of major earthquakes. In a paper prepared for the American Geophysical Union meeting last April, Dr. James N. Brune, of the California Institute of Technology, reported that a study he conducted led to the theory that:

In many cases large earthquakes may be considered successions of triggered events, rather than smoothly propagating ruptures.

The evidence also strongly suggested that a large nuclear explosion might conceivably be sufficient to serve as the initial trigger, provided all the circumstances were appropriate. Dr. Brune, together with his colleagues at the institute, Dr. Max Wyss, said that this mode of earthquake development would increase the difficulties of prediction, because it would be necessary not only to predict the initial event, but also to understand all of the very complex geophysical circumstances that led to the resultant succession of events.

The report noted, for example, that the initial event of the great Alaskan earthquake of 1964 was registered as only 6.5 on the Richter scale, which is the scale used to gage the severity of earthquakes; but the largest event in that earthquake sequence had a magnitude of 7.8—which represents an enormous leap on the Richter scale.

In comparison with the largest underground nuclear blast conducted in Nevada, the boxcar 1.2 megaton shot in April 1968, produced direct seismic disturbances of magnitudes as high as 6.2 on the Richter scale, according to other scientific reports.

Dr. James Hadley, the physicist of the AEC Lawrence Radiation Laboratory in Livermore, Calif., said that it was "con-

ceivable" that a nuclear test detonation so close to the concentration of stress in the earth's crust, such as that in Amchitka, could trigger a huge earthquake. He pointed out that, while there has been no evidence of any great stress concentration in the Nevada test sites, this was not true of the Amchitka area. There, he said:

We have to accept the possibility that, being very close to concentrations of stored energy in the earth, tests might trigger larger events.

Even the Benham 1.1 megaton shot last December in Nevada was followed by approximately 10,000 localized earth shocks, according to scientists of the AEC, and a full month later the ground was still trembling several times a day.

Furthermore, according to AEC, each of the high-yield Nevada test shots caused linear fracture and faulting for a distance of nearly 5 miles in the area. They caused thousands of tiny earth tremors some 1,200 miles away from the explosion site.

POSSIBILITY OF SEISMIC DISTURBANCES GREAT

Clearly, then, the possibility of seismic disturbances following the Amchitka detonation is extremely great. There is no logical reason why a nuclear explosion could not be the initiating seismic event in a series of such events. According to Dr. Brune:

The larger the explosion, the greater the possibility of its triggering such a series.

According to Melvin L. Merritt, of the Sandia Laboratories at Albuquerque, N. Mex., which has taken part in the AEC's seismological studies, the Amchitka tests will be fired at a distance of from 30 to 100 kilometers from the seismic zone associated with the Aleutian Thrust Fault. Unlike some fault systems, such as the San Andreas Fault in California, which are visible on the earth's surface, the great Aleutian Thrust Fault is buried deep in the earth. For this reason, Dr. Brune said:

I would think that scientists would be very hesitant to fire off a large nuclear explosion only 30 kilometers from the San Andreas Fault.

The people of the State of Alaska, the great 1964 earthquake still vivid in their memories, are tremendously worried, I am sure, about the Amchitka test series.

At least as worried as the Alaskans are the people of my own State, where tidal waves, or tsunamis, generated by Alaskan seismic disturbances, have wreaked havoc along the length and breadth of the northern coastlines of all eight islands in the Hawaiian archipelago.

Tsunamis travel over the open ocean at a speed of about 500 miles an hour. The height of the wave in the open sea might be only a few feet, but the wave begins to build as it approaches shallow water, or reefs near a coastline.

Since 1946, tsunamis have struck Hawaii five times—in 1946, 1952, 1957, 1960, and 1964. All but that of 1960 were generated in the Aleutians.

After the great Alaskan earthquake of 1964, waves reaching heights of 30 feet smashed against the Alaska coast and

caused damage as far south as Crescent City, Calif.

A 1946 earthquake in the Aleutians produced a tsunami that traveled at about 490 miles an hour and reached Hawaii in less than 5 hours. Waves crested at 45 feet in height at the coastline of the island of Kauai and 55 feet at the big island of Hawaii.

The toll of lives lost reached 159, and the damage and losses reached into the hundreds of millions of dollars.

A 1960 tsunami originating in a Chilean earthquake killed 61 persons, devastated the coastlines of all islands in Hawaii, and destroyed untold millions of dollars in property. The wave continued and hit Formosa, the Philippines, New Zealand, and Japan, leaving death and destruction in its wake.

According to scientists on the Committee for Environmental Information, in their report dated June 14, 1969, underground nuclear tests would have about the same force as earthquakes in the Aleutians that "in the past have created tsunamis."

POSSIBILITY OF TSUNAMI GREAT

The report continued:

Since Amchitka Island is only four miles wide, any earthquake triggered on or near the island would be almost certain to result in movement of the sea floor, and, therefore, possibly in a tsunami. If in this earthquake region a test were to precipitate a quake any larger in magnitude than the test itself, resulting in fault movement over many miles, the result might be a tsunami which did damage thousands of miles away.

The President's Science Advisory Committee panel on safety aspect of the underground nuclear test program delivered its report late last fall to the White House. According to the chairman of the panel, Dr. Kenneth S. Pitzer, president of Stanford University, while the report did not declare that the Amchitka tests would involve unacceptable risks, the panel members appeared to have looked at this test series very dubiously.

The panel did not have a mandate to consider alternative sites for the tests, but some of its members have revealed that the consensus within the group was that the north slope of Alaska's Brooks Range would be much safer than Amchitka for high-yield tests. The area is not earthquake-prone and is largely uninhabited.

But the AEC's view is that Brooks Range is acceptable only in the event that the Amchitka site is found to be unsuitable.

The Pitzer Committee strongly recommended that if high-yield nuclear tests must be conducted at Amchitka for compelling reasons of national security, the minimal precautions observed should include: First, increasing the shot yields gradually; and second, closely monitoring the shots for seismic effects. Again, the consensus of the Pitzer Committee was that these precautions would be advisable because even a low-yield shot might be enough to release the energy which is naturally accumulated along faults where strains exist.

However, according to present plans, the AEC will not be increasing shot yields by modest increments. Only three

test holes have been drilled on Amchitka, one for the October's 1-megaton calibration test, and the remaining two for the testing of weapons too powerful to detonate safely in Nevada.

RADIOACTIVE SEEPAGE

Another serious concern about high-yield underground nuclear detonations is the danger of such a large explosion cracking open a fault and allowing radioactive material to escape into the atmosphere.

The Nuclear Test Ban Treaty specifies that no such material may enter the air space of another country. It is a well-established fact that at least one underground explosion in the past has released radioactive debris into the atmosphere by cracking open a fault. In addition, according to AEC figures, of the 40 underground shots fired in 1966, four of them leaked to such an extent that they were detected outside of the test area. Of the 27 shots in 1967, two leaked. Last year there was one leakage in 33 shots.

Radioactive seepage which may result from the Amchitka tests would contaminate Pacific waters and result in the destruction of fish and other ocean life for thousands of miles into the ocean. The island of Amchitka is only 3 to 5 miles wide. No matter where the bombs may be detonated, the explosions would produce fracture zones in the rock, extending considerable distances beyond the shores of the island. This contamination could easily leak into the ocean, and ocean currents would carry these waters for thousands of miles into the Pacific and even beyond.

Just as easily, the contamination may seep into the atmosphere. Nuclear, as well as chemical, explosions produce what is known as a base surge. As described by the AEC, a base surge consists of clouds of dust that are expelled in all directions along the ground by the pressures of an explosion.

A base surge from a nuclear explosion may be several hundred feet thick and may roll out many miles before dissipating. Much of the radioactivity not contained in the vicinity of the nuclear explosion is carried by this base surge and deposited on the ground over which it travels.

EVACUATIONS NECESSARY

The implications of a nuclear base surge for the Amchitka tests are that it is essential for all people in nearby areas to be evacuated. Further, Adak Island, only 180 miles from Amchitka, is inhabited by Navy personnel and their dependents. A few miles to the east of Amchitka, native Aleuts inhabit Unnak Island. There is no question but that these people must be evacuated.

But, as I mentioned earlier, the Russian city of Petropavlovsk is located only 830 miles from the test site. Must these inhabitants be evacuated? How far distant from the test site must such precautionary evacuations be made? How long must the affected areas remain evacuated before the inhabitants are permitted to return?

How, indeed, will the Amchitka test series affect American diplomatic relations with the Soviet Government, the Japanese Government or, for that mat-

ter, with all governments around the rim of the Pacific.

Although the protection of people is of primary consideration, the protection of wildlife from any destructive effects of the tests must also be taken into account. Amchitka, after all, is located in the middle of a National Wildlife Refuge.

Scientists, conservationists, and other persons concerned with protecting our natural environment from the destructive activities of man, have warned that the few bald eagles, our national emblem, which inhabit Amchitka, may well be wiped out as a species; they also worry about certain rare sea otters, ducks, and other wildlife.

Mr. President, I hasten to add that I do not oppose underground nuclear testing when such tests are necessary for the national defense or are to be used for peaceful purposes.

I am not a seismologist, nor am I a geophysicist, and I do not profess to know all the risks and peril involved in this Amchitka operation.

UNKNOWN DANGEROUS CONSEQUENCES

But I do know that a large segment of the American scientific community have expressed their alarm and concern about the tremendous risks in the tests as now planned and scheduled by the AEC at Amchitka; I do know that these experts have voiced their concern for the horrors with which mankind might be confronted should we go ahead with the Amchitka tests and thus irreversibly trigger unknown dangerous consequences.

As Dr. Clarence R. Allen, of Caltech's Seismological Laboratory, said:

My confidence in (the safety of the Amchitka tests) would be increased if our geological and geophysical knowledge of the area were greater.

No matter how small may be the probability of any of the dangers I have been discussing—no matter how slight the possibility of a seismic disturbance or a tsunami; no matter how insignificant the chances of seepage and leakage may be, the present state of geologic, seismic and oceanographic knowledge does not allow us to rule out entirely any of the lethal dangers which I have been discussing. Every possibility, however remote, must be considered, investigated and studied thoroughly—and then every possible precaution taken to minimize any lethal effects which might result.

Mr. President, in view of the tremendous dangers surrounding the scheduled series of underground nuclear detonations at Amchitka Island, in view of the palpable ignorance and uncertainties over their consequence, I have urged the committee to act speedily on Senate Joint Resolution 155, in order that a thoroughgoing study and investigation in these matters may proceed without delay. I further urge that you will order a suspension of the Amchitka project until such studies and investigations have been conducted and the necessary information obtained, before proceeding with the tests.

CONCLUSION OF MORNING BUSINESS

Mr. BYRD of West Virginia. Mr. President, is there further morning business?

The PRESIDING OFFICER (Mr. GRAVEL in the chair). Is there further morning business? If there be no further morning business, morning business is closed.

FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969

The PRESIDING OFFICER. By previous order, the Chair lays before the Senate the unfinished business, which will be stated by title.

The ASSISTANT LEGISLATIVE CLERK. A bill (S. 2917) to improve the health and safety conditions of persons working in the coal mining industry of the United States.

The Senate resumed the consideration of the bill.

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. TOWER. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. TOWER. Mr. President, I ask unanimous consent that I be permitted to speak out of order for 3 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

THE AMERICAN POSTURE ON VIETNAM

Mr. TOWER. Mr. President, any suggestion of unilateral withdrawal of our forces from Vietnam serves to fuel war, not promote peace. Should we set a time certain for withdrawal from South Vietnam, we would completely sabotage the negotiation which is currently going on in Paris. The enemy would be encouraged to continue the war beyond a point at which he might otherwise opt for peace. Any resolution calling for withdrawal would make more sense if it provided for immediate withdrawal, not only of our troops, but of our negotiating team in Paris. Adoption of a policy of unilateral withdrawal in accordance with a firmly established timetable would, in reality, amount to capitulation. The credibility of the United States as a world leader would be destroyed and, ultimately, a power vacuum would develop which alien forces would rush to fill.

This would be tragic in light of the fact that with the advent of President Nixon's policy, there has been little complaint over the world about American posture on Vietnam. Privately, many heads of state encourage us to remain until we can get a satisfactory settlement which results in the arrest of Communist aggression in Southeast Asia. Such a settlement in the present context seems to be unattainable.

All of our conciliatory gestures and initiatives, such as the moratorium on bombing, has not produced a favorable response from Hanoi. Their strategy is to continue fighting until the United States wearies of the war and surrenders its goals. I think the time is fast ap-

proaching when, in the light of North Vietnamese intransigence, we must consider the exercise of additional military options available to us such as the resumption of bombing in the North, interdiction of their lines of communication and supply on a saturation basis, and closing the port at Haiphong.

It becomes increasingly apparent that the intensification of military pressure on our enemies is the only thing that will bring them to terms. I don't believe that we should regard victory as either an evil word or an unattainable goal. It is my belief we can achieve military victory with no more than our present available resources. The policy of restraint, though honestly motivated, and worthy of trial, has to date been unsuccessful.

We should convince Hanoi of our resolve. They are not now convinced and the words of those who advocate unilateral withdrawal give them encouragement to keep fighting. If the American people, and especially American leaders, would unite behind their President and declare a moratorium on attacks on his policies, lives would be saved and an early resolution of the conflict could be accomplished.

Mr. GOLDWATER. Mr. President, will the Senator yield?

Mr. TOWER. I yield to the Senator from Arizona.

Mr. GOLDWATER. Does the Senator agree that military victory in South Vietnam is unattainable?

Mr. TOWER. No, I do not agree. I think it is attainable.

Mr. GOLDWATER. I agree with the Senator, and I commend him for the remarks he has made today.

I heard earlier the remarks made on the floor by the junior Senator from Arkansas about his proposals, his alternative, and I think it is proper and high time that other alternatives be offered. I join with the Senator from Texas in believing that we can achieve a military victory, that it is high time we told the people in Paris to fish or cut bait, and that if they do not, we go ahead and win this military victory which through sheer stupidity on the part of the Secretary of Defense prior to this administration we were prevented from obtaining.

I am glad the Senator has spoken as he has. I intend to address myself to the same subject later this week.

I am getting a little tired of people in this country saying we cannot win, of people in this country helping Hanoi by continually saying, "Let's pull out. Let's come home. Let's quit."

I do not think they will ever agree to peace over there as long as we try to set a deadline to pull our troops back, as long as we keep saying we are going to quit, we are not going to try to win.

I congratulate the Senator on starting what I hope will be a real ball rolling so that this country can come together, come to its senses, and stand behind the President, regardless of what decisions he makes, and I hope he makes a real tough one in this case.

Mr. TOWER. I thank my distinguished friend the Senator from Arizona, who is very well versed in military affairs.

Certainly, we can win. The reason why we have not won is that we have exercised restraint. It is because we have chosen not to adopt the role of victory as policy, and that is the only reason. We have the resources to accomplish a victory. It would have been much easier some time ago than it would be now. I will admit that the odds are greater. But we still can accomplish it. As the Senator knows, because he is a retired Air Force general, right now if we have to go back into the north, it is going to be costly for us because of the highly sophisticated antiaircraft defenses that have been developed there in the period since the moratorium started.

But if we must exercise such an option, we must. I think that over the long pull we save human life if we bring to bear in a massive way the military ground forces and the air and naval resources we have, to achieve maximum impact on the enemy. We can win it, and I think in a reasonably short period of time, which would save lives over the long pull. I think it would be better than a day-in, day-out, month-in, month-out war of attrition.

Mr. GOLDWATER. The Senator is correct.

When the decision was made in 1961 to go into South Vietnam heavily, a decision at the same time to win the war did not occur, and we went into what we like to call limited warfare. There is no such thing as limited war, because the enemy is not going to limit himself. We found this. When war is declared, as when it is undeclared, at the time we go to war the decision must be made to win the war in the next 15 minutes, if we can do it. This is the way lives are saved in war.

World War II, I remind the Senator, was extended long after its original period because of the terms of unconditional surrender, which are unacceptable to any enemy. I can understand that.

The decision made back in the early 1960's to fight a limited war has dragged this thing long past the time it would have been ended. Had we used our strategic airpower, both naval and air force power, this war would not have gone past the threatening stages, in my opinion.

I think the President should feel perfectly safe in saying, "You either come to a decision in Paris at the peace table, or we can consider breaking the dikes of the Red River, destroy the harbor of Haiphong, and we can deny you equipment."

I grant that we are going to face trouble, because in this long period of no bombing from November 1 of last year, as the Senator knows, because I believe he has been to South Vietnam five times, the buildup north of the DMZ has been spectacular. They have amassed equipment up there, power and transportation facilities, that they never had before, only because we were willing to let them do it.

If we made the decision to go in and win this war—which they know we can do—I think that threat alone would cause them to get to work in Paris or cause them to come to us and ask for a ceasefire. This is the way it should be,

and I hope it could be some other way. But I do not think we are going to be able to do it any other way.

Mr. TOWER. I concur with the Senator.

It is very foolish for us to say to the enemy, "Regardless of what you do at a given point in time, we will withdraw."

The distinguished Senator from Nebraska made a good analogy in a private conversation I had with him, when he said:

As a lawyer, it would be as if two lawyers sat down to talk and one said to the other, "I won't pay you a thousand dollars; I'll settle for \$500. But if you won't settle for \$500, I'll pay you the thousand."

In effect, this is what we are doing now.

If we pinpoint in time when we will pull out all our troops, the enemy will have no incentive to negotiate, and we might as well pull our negotiating team out of Paris, because there will be no basis for negotiating. I think negotiation would have a better chance for success if we impressed on Hanoi our resolve—not only impressed on them what we have in terms of power, but also our willingness to use it if necessary.

CALL OF THE ROLL

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The bill clerk called the roll, and the following Senators answered to their names:

	[No. 105 Leg.]	
Allen	Goldwater	Saxbe
Baker	Gore	Schweiker
Byrd, W. Va.	Gravel	Scott
Cook	Griffin	Stennis
Cooper	Hruska	Talmadge
Cotton	Metcalf	Tower
Cranston	Montoya	Williams, N.J.
Dodd	Nelson	Yarborough
Ervin	Pearson	
Fannin	Prouty	

Mr. KENNEDY. I announce that the Senator from Michigan (Mr. HART), Senator from Iowa (Mr. HUGHES), Senator from North Carolina (Mr. JORDAN), Senator from Washington (Mr. MAGNUSON), are absent on official business.

I also announce that the Senator from Florida (Mr. HOLLAND), Senator from Montana (Mr. MANSFIELD), Senator from Georgia (Mr. RUSSELL), Senator from South Dakota (Mr. McGOVERN), are necessarily absent.

Mr. GRIFFIN. I announce that the Senator from Oregon (Mr. HATFIELD), the Senator from Idaho (Mr. JORDAN), the Senator from California (Mr. MURPHY) are necessarily absent.

The PRESIDING OFFICER. A quorum is not present.

Mr. BYRD of West Virginia. Mr. President, I move that the Sergeant at Arms be directed to request the attendance of absent Senators.

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from West Virginia.

The motion was agreed to.

The PRESIDING OFFICER. The Sergeant at Arms will execute the order of the Senate.

After a little delay, the following Senators entered the Chamber and answered to their names:

Alken	Fulbright	Muskie
Allott	Goodell	Packwood
Anderson	Gurney	Pastore
Bayh	Hansen	Pell
Bellmon	Harris	Percy
Bennett	Hartke	Proxmire
Bible	Hollings	Randolph
Boggs	Inouye	Ribicoff
Brooke	Jackson	Smith, Maine
Burdick	Javits	Smith, Ill.
Byrd, Va.	Kennedy	Sparkman
Cannon	Long	Spong
Case	Mathias	Stevens
Church	McCarthy	Symington
Curtis	McClellan	Thurmond
Dole	McGee	Tydings
Dominick	McIntyre	Williams, Del.
Eagleton	Miller	Young, N. Dak.
Eastland	Mondale	Young, Ohio
Ellender	Moss	
Fong	Mundt	

The PRESIDING OFFICER. A quorum is present.

FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969

The Senate resumed the consideration of the bill (S. 2917) to improve the health and safety conditions of persons working in the coal-mining industry of the United States.

The PRESIDING OFFICER. The bill is open to amendment.

Mr. COOPER. Mr. President, I send an amendment to the desk and ask that it be read.

The PRESIDING OFFICER. The amendment offered by the Senator from Kentucky will be read.

The legislative clerk read the amendment, as follows:

S. 2917

On page 51, line 24, immediately before the period, insert a semicolon and the following: "except that the provisions of this subparagraph (D) shall not apply to any mine which is not classified as gassy as defined in paragraph (12) of this subsection."

On page 56, between lines 12 and 13, insert the following:

"(12) As used in subsection (1) (1) (D) of this section, the term 'gassy' as used with respect to any coal mine means any mine which has been or hereafter is classed in any manner as a gassy or gaseous mine in accordance with the laws of the State in which it is located or any Federal law, or which has been operated as a gassy mine prior to the operative date of this title, or in which the methane has been ignited, or in which an authorized representative of the Secretary finds methane in an amount of 0.25 per centum or more in any open workings of such mine when tested at a point not less than twelve inches from the roof, face, or rib."

Mr. COOPER. Mr. President, may I ask if my amendment is the pending business?

The PRESIDING OFFICER. The amendment is the pending business.

Mr. COOPER. Mr. President, the amendment which has been read has not been printed. I have decided to use this version of my amendment rather than the one that was printed amendment No. 207, because the amendment I now offer is in simpler form and I think may be more easily understood.

Mr. President, as the members of the committee and other Senators who have been attending the debate know, the purpose of this amendment, which has

now been made the pending business, is to maintain the existing classification as either gassy mines or nongassy mines.

Of course, the statistics vary from year to year as mines are opened or closed, but the records of the Bureau of Mines—from 1952 through 1968, 16 years—would indicate that there are about 400 mines which are classified as gassy mines, and about 3,200 which are classified as nongassy mines.

The 400 gassy mines produce about 60 percent of the bituminous and anthracite coal mined in the United States. The approximately 3,200 nongassy mines, which are smaller mines, produce about 40 percent of the coal mined in the United States today.

I have some understanding, I believe, of these problems of our coal mines. Kentucky is the second largest producer of coal in the United States. Only West Virginia is superior in coal production.

Coal is produced in both the eastern and the western sections of Kentucky. In the eastern section, the coal is usually mined from what are known as drift mines. A drift mine is one in which openings are driven into the side of the hill, horizontally, with the vein of coal. The veins of coal may vary from 30 to 48 inches. Now and then there are thicker veins, though not of great acreage—some of a thickness of 5 or 6, or sometimes 7 or 8 feet.

In western Kentucky, as in Illinois, the mines usually are shaft mines, where access to the coal is obtained by driving a shaft perpendicularly into the ground, reaching in some mines great depths.

A third type of mining, which is not affected by this bill, is known as strip-ping. Anyone who has ever driven through or flown over a stripped area will know what I am talking about.

Mr. President, may we have order? I cannot speak very loudly, as Senators know, and I am doing my best.

The PRESIDING OFFICER. The Senate will be in order.

Mr. COOPER. I was talking about strip mining. As I said, in hilly areas, one flying over the area can see around the hills concentric rings in flat terrain, areas stripped look something like pictures of the moon, except that they are much less attractive. Great cries have risen against strip mining, for good reason. One effect of the present version of this bill will be to increase strip mining. However, I now return to the core of my argument on the amendment.

Its purpose is, as I have said, to preserve the classification, now in the law, of gassy and nongassy mines.

A gassy mine, as has been determined by the regulations of the Bureau of Mines, is a mine which is classed as gassy under State law, or where an ignition of methane gas has occurred, or a mine where, by tests—and these tests are performed daily—it has been found that one-quarter of 1 percent of the area tested shows the presence of methane gas. I emphasize that when a mine is classed as gassy, it is done by finding methane gas in one-quarter of 1 percent or more of the area tested. To take the converse, a nongassy mine is one in which less than one-quarter of 1 percent of gas has been found in any daily test.

Once a nongassy mine has been classed gassy it can never again be reclassified nongassy.

The amount of gas which will cause ignition is from 5 to 15 percent; and if there should be an ignition, of course, there is a danger of explosion and fire, causing fatalities. Last fall there was a terrible tragedy in a mine at Farmington, W. Va., owned by the Consolidated Coal Co. It was a deep mine, with miles of underground passages, and there were a large number of miners working in it. It was a mine which had always been classed as gassy, and a few years before there had been an ignition in that same mine. And 16 miners were killed.

Notwithstanding the known danger in such gassy mines, where so many tragedies have occurred, the mine was opened again, and this explosion occurred, killing 78 people. I have read in the newspapers that they are investigating the cause of the explosion in the mine, and are getting ready to open it.

It is similar to many of the other gassy mines. The workers will go down to this mine again, and they are always faced with the danger of another explosion. But there is nothing in the bill, which is presented to us in the name of safety—and there is much in it that will help—which would prohibit the reopening of these gassy mines where these tragic deaths have occurred.

I have now spoken on this subject in the Senate three times and have placed in the RECORD the statistics I have received from the Bureau of Mines.

The effect of classifying all mines as gassy would be this: Under existing law, all gassy mines are required by law to use what is called "permissible" equipment. The design and construction of the equipment is intended to prevent sparking which might ignite the gas. Testimony taken by the committee indicates that there must be an accumulation of about 5 to 15 percent of gas to cause an ignition; but although this bill—and I say it willingly, as a cosponsor of the bill—works to better standards in both gassy and nongassy mines, and it is hoped that it will improve conditions in the gassy mines, permissible equipment will still be used there, and it will not prevent these ignitions and explosions that we have experienced throughout the years.

Early this year I asked the Bureau of Mines to give me a list of the nongassy and gassy mines. They are tabulated for 18 States. And in most of these States, the nongassy mines are greater in number than the gassy mines.

This is particularly true in my State where almost all coal mines are classified as nongassy. If these nongassy mines are required to reconvert their conventional equipment to what is called permissible equipment, it will—as I will point out later—cost vast sums of money. These smaller mines, by the nature of their operation—small in area and small in number of miners employed—would be forced to go out of business, and with no essential contribution to safety. The danger would reside still in the gassy mines.

I do not say this rhetorically. I have the statistics of the Bureau of Mines

which I placed in the RECORD on June 5 and September 25, 1969. This is the record. In the 392 gassy mines, employing 55,000 men, the record for a period of 16 years shows that 381 ignitions and explosions occurred. Three hundred seventy four were killed and 427 suffered serious injuries.

In the same period of years, in nearly eight times as many nongassy mines as gassy mines—approximately 3,200 mines—there were 52 ignitions, 27 were killed and 54 injured.

It is sad for anyone to be killed or injured. However, I make the statement that, considering the fact that mining is a hazardous industry, the record in the nongassy mines is good. There were 52 explosions, slightly over 3 a year, in more than 3,000 mines.

I asked the Bureau of Mines to give me a report on the causes of ignition or explosion in the nongassy mines in these 52 cases. I had a detailed description of the cause of the 52 explosions printed in the RECORD. The RECORD shows that, with the exception of a very few—I believe nine in number—43 occurred because of smoking, lighting a match, the use of an open flame lamp—all now prohibited by the pending bill, and properly so.

In only nine of those 52 occasions would there have been a possibility of preventing the ignition had permissible machinery been employed. And those cases concerned coal drills and blowers. Under the pending bill, permissible blowers and coal drills are required, and my amendment does not strike this requirement. There is no case in the 52, where a permissible motor car, or coal loaders, cutting machines, or a continuous miner, even if they had been permissible, would have prevented the ignitions.

I want to hammer again and again, if I can do so, this into the minds of those who are present and those who may read my remarks—the comparison of almost 400 gassy mines producing 374 deaths in 16 years, and almost 3,200 nongassy mines with 52 explosions and 27 deaths in the same period.

A terrible tragedy occurred at Farmington, W. Va., last year. What did the Bureau of Mines do? The record shows that it had not been on the job, for since this tragedy occurred they have made more inspections and have found gassy mines that were improperly declared nongassy for years.

They do recommend better safety procedures which I support. But they propose to reequip the 3,200 nongassy mines which are safe mines—whether a small mine in Kentucky, West Virginia, Illinois, or Tennessee—that have never had an ignition or an explosion. There are literally hundreds of them.

Why should they be penalized when the big gassy mines are operating under dangerous conditions each time a man goes down in the mines. We are aware of the great investments made in these large mines.

The Bureau of Mines turns away from these dangerous mines and proposes to penalize an operator and his employees who keep the content of gas at less than one-fourth of 1 percent.

The operator of a nongassy mine has

an incentive to keep the mine clean and free from gas, because if he does not do so and it reaches one-fourth of 1 percent or more in volume, the mine will be classed as gassy. He would then have to pay out thousands and thousands of dollars to reequip his mine with permissible equipment and junk his present machinery.

Another tabulation is printed in the RECORD. I wrote the Bureau of Mines and asked them to give me a list of mines in which more than one explosion had occurred.

I hope this statement will be heard. It is shocking. Gassy mine after gassy mine has had more than one explosion. Many men have been killed. This has occurred in gassy mines in all States, even in my own State.

The records of the Bureau of Mines from July 1952 to July 1969 disclose that explosion after explosion continued to occur in the "gassy" mines, ranging from two to as many as 18 in the Clinchfield mine at Dola, W. Va., seven occurred in the Pittsburg and Midway coal mine at Union, Ky., 10 at the U.S. Steel Corp. mine at Concord, Ala., eight at the Jones-Laughlin Steel Co. mine at Concord, Ala., eight at the Jones-Laughlin Steel Co. mine in Vestaburg, Pa., and of course, we are reminded poignantly of the fact that the explosion at the Farmington mine in West Virginia last year, which took the lives of 78 miners, was preceded in 1954 by an explosion which took 16 lives at the mine owned by the Consolidated Coal Co.

As I have noted my State did not escape. At Union, Ky., in the western part of the State, a mine owned by the Pittsburg and Midway coal mine has had seven explosions.

Does the Bureau of Mines or do the sponsors of the pending bill propose closing these great mines—as I will describe them later—large areas with millions of dollars invested? No. The mine in West Virginia will be opened in a few days and the men will go back down into the depths of these mines.

Mr. COOK. Mr. President, will the Senator yield?

Mr. COOPER. I yield.

Mr. COOK. I would hope that Senators would turn to part II of the coal mine health and safety hearings which is on their desks. Between pages 880 and 881 is a map of the mine at Farmington, W. Va. Senators can see there the distinction right away, because the map shows 151 gas wells in and around those seams—151 known gas wells—and the map indicates abandoned natural gas wells. But gas wells abandoned before 1900 are not even mapped on here.

I can only say to the Senator that they may be about ready to open that mine in Farmington, but they could not guarantee that any one of the 151 known abandoned gas wells in and around those seams could not explode again tomorrow.

Mr. COOPER. The Senator is correct.

Mr. COOK. I am not sure that, under these circumstances, if we are going to punish the nongassy mines in the case of a gassy mine with the history of this one and the known gas wells around it,

we should not have an amendment requiring that every gassy mine be closed.

Mr. COOPER. I have an amendment I may offer which provides that when a mine has had two or more explosions, it will be closed for a period, to make certain that it will be safe when opened.

Mr. WILLIAMS of New Jersey. Mr. President, will the Senator yield for a question?

Mr. COOPER. I yield.

Mr. WILLIAMS of New Jersey. Does the Senator have any information at all that the Farmington mine is close to being reopened for the production of coal? As I understand it, they are just in the early stages of the tragic mission of recovering the bodies of the men who were killed in the explosion last November. There could be a suggestion here that they are close to opening that mine for coal production. Is there anything to suggest that that is anything but perhaps years away?

Mr. COOPER. The Senator is probably correct. All I do know is what I have read in the newspapers, the reports of opening of the mine and very careful testing of the mine—first, of course, for the purpose, if possible, of recovering the bodies.

Mr. COOK. Mr. President, will the Senator yield?

Mr. COOPER. I yield.

Mr. COOK. The record does show that this mine has had previous explosions, that it has been closed, that it was reopened at a later time, and that it has been utilized for the production of coal.

Mr. COOPER. The Senator is correct.

The Bureau of Mines shows one mine with 18 explosions, and they keep opening it.

Mr. WILLIAMS of New Jersey. I did not understand what the Senator said about an amendment that would deal with mines that have had two ignitions.

Mr. COOPER. I said I had such an amendment. I have not said I would offer it. I want to be fair. I hope this committee and the Senate will be concerned about the mines in which explosions have occurred again and again and which have an awful safety record.

Mr. WILLIAMS of New Jersey. There is an amendment, which has not been offered, which would close mines after the second ignition.

Mr. COOPER. There is an amendment at the desk.

Mr. BAKER. Mr. President, will the Senator yield for a question?

Mr. COOPER. I yield.

Mr. BAKER. I inquire whether I, too, correctly understood the distinguished senior Senator from Kentucky, to the effect that he has drafted an amendment that would strike directly at the heart of the gassy mine problem in the sense that it would require the permanent closing of gassy mines if there have been two explosions. Is that the thrust of the amendment to which the Senator has referred?

Mr. COOPER. That is the amendment. It is at the desk. I have not called it up. I wanted to have such an amendment printed, so that the Senate would have the opportunity to understand where the core of this danger is.

With all the tremendous movement to close the nongassy mines, I thought we at least ought to suggest to the Senate that perhaps the thing to do is to close the mines that are killing the people working in them.

Mr. BAKER. If the Senator will yield further, I should like now to associate myself most firmly with the point made by the distinguished senior Senator from Kentucky.

I intend to fully support the amendment now pending, to reinstate the distinction between gassy and nongassy mines. If his second amendment is called up—to require the permanent closing of gassy mines that have had two explosions—my inclination is to support it.

It seems to me that, whether that is so or not, the terrible experience at Farmington is one of the reasons why we are coming to grips with the problem of mine safety.

I know something about the coal mining business, both large and small mines, because I grew up in eastern Tennessee, where the coal mine regions are, such as we have. It seems to me that the bill, with all due deference to the committee, has very little to say about the Farmington incident or about the deadly explosive potential of gassy mines but, rather, sets up an objective of requiring the scrapping of millions of dollars' worth of equipment in nongassy mines in order to salve the conscience with respect to losses and deaths and injuries sustained in gassy mines, which hardly seems a direct approach to a critical problem. I believe the record taken by the distinguished committee would fully support a distinction between gassy and nongassy mines, as the distinguished senior Senator from Kentucky now proposes, and that further measures to protect workers in gassy mines is a proper consideration of the Senate at this time.

I commend the senior Senator from Kentucky and the junior Senator from Kentucky for their deep and vital interest in this matter, and I fully associate myself with the position they take.

Mr. COOPER. I appreciate the remarks of the Senator from Tennessee. I know where he lives and where he was born and where he grew up. It is a coal mining area, as is the area in my State where I live. We have seen mines in operation, and we have been in the mines. We may say that we do have some knowledge that comes from observation, for whatever it is worth.

I want to recall to the Senate and to the manager of the bill that I have referred to the tables which I placed in the RECORD, supplied me by the Bureau of Mines after I had written a letter asking for the tables, and I assume they certify them as correct. They cover the period from 1952 through 1968.

I find a paper on my desk. I do not know who placed it there; but if it is on the desk of each Member, I assume it is designed to appeal to Members of the Senate. It would appear to be a contradiction of what I have said about the record. I will point out that it is a diversion. I must say that whoever proposed the statements does not know any-

thing about the facts and that it would mislead the Senate.

It reads: "Methane ignitions and explosions in nongassy mines, 1941 to 1969."

The record I gave began in 1952. This chart, on which deaths and injuries from 1941 and 1952, are reported is a hoax. I will give my reasons. There was no effective Mine Safety Act until 1952. An act was passed in 1941 which was merely advisory. The Bureau of Mines had no power to inspect the mines; nor enforcement powers. Its powers were investigatory and advisory.

In 1952 Congress amended the act and it did provide in the act itself, safety standards in the mines. Further, the Bureau of Mines prepared a code which spelled out the standards in greater detail. The Bureau of Mines was given the authority, in the case of mines employing more than 14 people, to go into the States to inspect these mines, to enforce the law, and to close mines, if necessary. Of course, the record has been better since 1952. However, to go back before there was a mine law, in which there were standards, and before enforcement of these standards by listing the deaths, fatalities, and explosions is improper.

Mr. BAKER. Mr. President, will the Senator yield?

Mr. COOPER. I yield.

Mr. BAKER. Mr. President, I wish to say that the point made by the Senator from Kentucky is a very real and relevant point in this debate. I would like to commend him for bringing to our attention the fact that the 1941-69 time period does not actually reflect the effort of the U.S. Government to provide mine safety, especially in nongassy mines.

There is one additional point I would like to make and I wish to ask the senior Senator from Kentucky if he agrees with me. Assuming that the base period of 1941 to 1969 was relevant for any purpose, the record of injuries, and the record of the number of ignitions in nongassy mines is tremendously smaller than the number of industrial accidents in any other industry I know of for this number of operations and this number of people employed.

Mr. COOPER. The Senator is correct. Only last week I read in the Evening Star an article by Mr. McKelway, who writes with humor and charm but this particular article was not humorous. Mr. McKelway was discussing accidents. Apparently he had talked to officials in the Department of Agriculture and had ascertained there had been 1,000 farmers, or farmers' sons or daughters, killed last year in the operation of tractors.

I do not know whether that figure is accurate. It just occurred to me as the Senator made his comment. I would say that one of the other great dangers, as far as injuries are concerned, is the mowing machine. That fact is well known.

Mr. BAKER. Mr. President, will the Senator yield?

Mr. COOPER. I yield.

Mr. BAKER. Mr. President, I think the senior Senator from Kentucky is uniquely qualified to make the point that there were no effective Federal mine laws until 1952 because, I point out, while the senior Senator from Kentucky does

not serve on the committee, he once did serve and served with distinction on the committee that has jurisdiction over mining legislation. He had a great part in shaping and forming standards of safety and in preserving the distinction between gassy and nongassy mines. He has a personal knowledge of the situation and, as I said a moment ago, so have I.

I have been in mines, both gassy and nongassy, big and little. I can say, and I hope the Senator agrees, that as far as I can tell the substitution of permissible equipment in nongassy mines will not have a substantial impact on the good safety record in nongassy mines, and it will have no impact on gassy mines.

Mr. COOPER. The Senator is correct. The Senator knows the subject.

The bill properly draws attention to the great problems of ignition and explosion. Ignitions and explosions with fatalities and injuries shock the country. Men are killed in the explosions. However, the big killer in the mines has been coal falls from the roof, the face where the coal is mined, and from the ribs which support the roof. Over one-half the fatalities that have occurred in coal mines have resulted from these rib, roof, and face falls.

In 1957 or 1958—I cannot remember the exact date—when a coal mine safety bill was before the Senate, I introduced an amendment which was reported by the Committee on Labor and Public Welfare. I was on the committee at that time. Former Senator Wayne Morse was the chairman of our subcommittee, former Senator John Kennedy was a member, and I was the third member. We reported a bill to try to reach this chief killer. We were not successful. The Bureau of Mines did not support the measure because they wanted to do then what they want to do today: favor regulations which will have the effect of closing the small mines.

We worked out an amendment in 1966. I was not on the committee at that time; Senator Wayne Morse was, and an amendment was secured to improve safety conditions.

This bill contains an amendment, which I proposed to provide stronger measures and standards for support of roof, rib, and face.

Now, I will return to my subject. Why are mines classified nongassy? The first and simplest reason is that they are essentially nongassy. Every coal seam has methane gas, but there are geological and physical characteristics of nongassy mines as compared to gassy mines, which have led to their classification as nongassy and to their good safety record.

A few moments ago I discussed the various types of mines. At the risk of repetition I will do so again briefly.

In some mines the shaft is driven perpendicularly into the earth some at great depth. Elevators and hoists are used. As Senators know, there is a main entry and other entries are driven out in various directions through the coal seam. Rooms at the sides of the haulways are opened and by careful shoring of the roof the coal is mined.

There are slope mines, where entries are driven in at an angle, often under the

water table. The gas—in these types of mines and this is admitted in the record—cannot escape. It cannot escape easily unless there had been an earth convulsion. The gasses are fastened under the water table. The nongassy mines are those I have described as being driven into the side of the hill. They are above the water table, and as those of us who have ridden through the hilly country know the earth has been broken. The gas has been released.

Mr. WILLIAMS of New Jersey. Mr. President, will the Senator yield?

Mr. COOPER. I yield.

Mr. WILLIAMS of New Jersey. Are there any mines that are now classified nongassy that are below the water table?

Mr. COOPER. There could be.

Mr. WILLIAMS of New Jersey. There could be.

Mr. COOPER. Most nongassy mines are in the hilly parts of States like Kentucky, Virginia, West Virginia, Tennessee, Ohio, and Alabama.

Mr. WILLIAMS of New Jersey. In other words, the number of mines presently classified nongassy are above the water table.

Mr. COOPER. I know that is a characteristic of the nongassy mine.

Mr. WILLIAMS of New Jersey. If there were any degree of difference in treating mines, this would be one distinguishing factor whether the mine was above or below the water table?

Mr. COOPER. No, not at all.

Mr. WILLIAMS of New Jersey. I thought the Senator said that was where the gas—

Mr. COOPER. I was trying to describe some of the characteristics of mines which cause them, when inspected, not to exceed one-quarter of 1 percent of gas.

Mr. WILLIAMS of New Jersey. There is another one—the Senator described shaft mines and drift mines—but there is another method of mining described as long wall mining. Do we have any of that in the area the Senator is addressing himself to?

Mr. COOPER. I would not recognize it. I may, if the Senator would describe it further.

Mr. WILLIAMS of New Jersey. That is where the mining is done, as the term states, along a long wall, hundreds of feet. It is a continuous mining operation along that wall rather than, as the Senator has described, the corridors, with chambers or rooms, as the Senator states.

Mr. COOPER. I have heard mining operators and mining engineers speak of that type of mine. One told me they wanted to testify before the committee about the advantages of this type. But I would not recognize that type of mine. I have not been in one.

Mr. WILLIAMS of New Jersey. Then the Senator is not addressing himself, obviously, to that?

Mr. COOPER. No.

Mr. PERCY. Mr. President, will the Senator from Kentucky yield?

Mr. COOPER. I yield.

Mr. PERCY. I have wanted to explain why I feel that I shall have to oppose the Senator's amendment, but I would be very happy to have any rebuttal the Senator may have of my reasoning.

First, I have been a cosponsor of the bill itself. Second, I have reaffirmed from the Bureau of Mines that they oppose the amendment. I have a very high regard for the Bureau of Mines under the direction of Mr. O'Leary. Third, from experience in Illinois, we had a disaster in 1962 in a gas-dust explosion in a mine owned by the Blue Blaze Coal Co., in Illinois, which caused the deaths of 11 men. The explosion was described by the Bureau of Mines investigators as caused by an electric arc or spark from a piece of electrical equipment. The explosion was propagated by methane coal dust. The mine was not classified as gassy by the Illinois Department of Mines and Minerals.

Thus, for those three reasons, I feel compelled to vote against the distinguished Senator's amendment, but I would be happy to have any rebuttal he might have that I should take into account before casting my vote. I have the very highest regard for the judgment and experience of the Senator from Kentucky. It is certainly deeper than mine in this field.

Mr. COOPER. I will be glad to respond to the Senator. I believe he said the Bureau of Mines was opposed to my amendment and therefore he would vote against it.

Mr. PERCY. I called the Bureau of Mines this afternoon just to see whether they had any last thoughts on this. I had understood that the Bureau of Mines and Mr. O'Leary stood with the original bill and opposed the amendment. I have been told on the telephone by Mr. Haynes, because Mr. O'Leary was not available, that the Bureau of Mines does wish to stay with its original position.

Mr. COOPER. As I recall, the Senator stated that his first reason for voting against the amendment—and of course the Senator will vote as he believes best—is that he is a sponsor of the bill. I am a sponsor of the bill, too. It has many provisions in it which are helpful which should have been incorporated in mine safety bills a long time ago—one I proposed 10 years ago. But I would not consider that my sponsorship of the bill prohibits me from studying the bill and deciding to support or reject portions of the bill. If I wanted to add to or change the bill, I would do so.

I have the report made by the Bureau of Mines, January 10, 1962, Illinois, 11 killed, cause, as given by the Bureau of Mines, permissible type shuttle car being repaired when ignition occurred.

Thus, the Bureau of Mines wants to require every nongassy mine to use all permissible equipment. Yet, this was an ignition that killed 11 men, where permissible equipment was used. It happens in gassy mines, using permissible equipment. The Senator was in the Chamber, I am sure, when I compared the record of gassy with nongassy mines.

Mr. PERCY. Yes, I was.

Mr. COOPER. 400 as compared to 3,200, yet despite permissible equipment required in gassy mines, they continue to have explosions and fatalities.

Mr. WILLIAMS of New Jersey. Mr. President, will the Senator from Kentucky yield?

Mr. COOPER. I yield.

Mr. WILLIAMS of New Jersey. I do not know whether we are reading from the same table.

Mr. COOPER. I am reading from the table given me by the Bureau of Mines. I have used the tables three times in the RECORD.

Mr. WILLIAMS of New Jersey. January 10, 1962. Is that the date?

Mr. COOPER. That is the date given me by the Bureau of Mines.

Mr. WILLIAMS of New Jersey. Where was this? The Blue Blaze Coal Co.?

Mr. COOPER. My record here does not give the name of the coal company but the date, the State of Illinois, and the cause of the ignition, the number of men killed, 11, and it corresponds to the statement of the Senator from Illinois.

Mr. WILLIAMS of New Jersey. The table that appears in part 5 of the hearing record is described this way: Electric arc from open panel in a shuttle car being repaired and in nonpermissible condition.

Mr. COOPER. That is misleading language. I am curious—

Mr. WILLIAMS of New Jersey. Which is misleading? The Senator's or what the record shows here?

Mr. COOPER. I will let it speak for itself. The Senator's record will speak for itself, and so will mine. The records were furnished me in June. I placed the table in the RECORD on June 5. The record, which was provided by the Bureau of Mines, describes this accident and all the other ignitions. I will ask the Senator, when did he secure his tables? I notice it has been drawn in a different form from mine. When did the Senator secure them? Were they introduced at the hearings?

Mr. WILLIAMS of New Jersey. These appear in our hearing records. I read from the tables. They are included in the hearing record. They were prepared by the Bureau of Mines on September 8, 1969.

Mr. COOPER. The point is, during the Senator's hearings the committee never asked the Bureau of Mines to submit records to it comparing the explosions, fatalities, injuries, in a gassy and a nongassy mine, did it?

Mr. WILLIAMS of New Jersey. I have the material here. I have the whole report right in front of me.

Mr. COOPER. My question is—

Mr. WILLIAMS of New Jersey. The number of ignitions, the number of miners killed in nongassy mines. I was going to put this in the RECORD—

Mr. COOPER. Were they requested in the hearings?

Mr. WILLIAMS of New Jersey. Of course, the material I read to the Senator from the record is in the record of the hearings and the record of the committee.

Mr. COOPER. That is right.

Mr. WILLIAMS of New Jersey. The material that I shall be describing later on the number of ignitions in nongassy mines for the period 1941-69, and the number of miners killed as a result of those ignitions, and the number of miners injured as a result of those ignitions, in what are still described as nongassy mines, was supplied to us by the Bureau

Mr. COOPER. The Senator was pres-

ent when I was discussing the new table of ignition fatalities and injuries which just appeared today. The one the Senator is just reading—

Mr. WILLIAMS of New Jersey. This is for the period 1941 until some point in 1969.

Mr. COOPER. I discussed that a few minutes ago. I think the Senator was here when I said it is not relevant, because from 1941 to 1952 the Bureau of Mines had no enforcement powers. The 1952 Act gives the Bureau of Mines such authority. I must repeat: I have put into the RECORD the facts, the record of ignitions, injuries and fatalities in gassy and nongassy mines that occurred since the adoption of the 1952 amendments. To go into the past before 1952, when mines were not under Federal regulations and enforcement procedures and to incorporate the record before 1952 is not relevant to the subject we are discussing today.

I have not cited the pre-1952 record of gassy mines, but I will be forced to do so if this argument continues.

Mr. WILLIAMS of New Jersey. Mr. President, if the Senator will yield, I just want to recall that all of this arose from the January 10, 1962, accident, and I thought I heard the Senator say that it dealt with permissible equipment. The record shows that if it were permissible equipment, it was in nonpermissible condition. That is the only thing I wanted to crystallize.

Mr. COOPER. I have already said that of the 52 cases, nine of them would not have occurred, and we hope they could not have occurred, if permissible drills and permissible blowers had been used. The bill requires such small equipment to be permissible and I support it. It is possible it did occur. The record we put in did not disclose that.

I have talked about the geological characteristics of nongassy drift mines. Most are small mines. The fact that 60 percent of the coal in the United States is produced by 400 mines, and that 3,200 mines are required to produce 40 percent, speaks for itself. The mine areas and the equipment of the 400 mines are different from those of the nongassy mines.

For a large mine operation to be economic, it requires the purchase or lease of large tracts of coal, whether underneath the surface or at the base of a hill. Large acreages must be mined to justify the purchase and installation of modern machinery, such as continuous coal miners which claw into the face of the coal, drag it back, and automatically load it onto a belt or car. The cost of modern equipment, even by Bureau of Mines estimates shown in the RECORD, requires a large capital investment.

Smaller mines do not require large acreages. They may be higher toward the crest of the hill, naturally of small acreage. The entries and haulways are not as long, and circuitous as those found in the larger mines, and naturally, they are safer.

One danger of explosion comes from the coal dust. Coal dust is combustible. I have been told, that one can hardly see his hand in front of him when the coal dust pours from the face of the coal, mined by modern machinery. It causes

black lung, and it presents also the danger of explosion.

Small mine operations cannot buy that kind of equipment. Their conventional equipment does not produce such a volume of coal and coal dust, and the danger of explosion is less.

I want to speak for a few minutes about the effect if small mines are required by law to junk their equipment and to purchase equipment which they cannot afford, do not need and which will not contribute essentially to safety.

Such a requirement will, of course, drive many small mines out of existence.

I am certain we will be talking about cost of permissible equipment. I will be ready to talk about cost. Mr. President, the distinguished Senator from New Jersey, Senator WILLIAMS placed in the RECORD of September 25, at page 27144, a table which shows that a continuous miner costs \$121,000—this is permissible equipment—shuttle cars, two, \$80,000, roof-bolter, \$16,000; Joy coal drill, \$20,000; cutting machine, \$84,000; loader, \$60,000.

A coal mine producing 50 to 100 tons a day, at an estimated profit of 30 cents a ton, cannot be equipped with that kind of machinery. The operator will go out of business.

What will happen to the miners who work in these mines? They number thousands.

Coal production must be maintained. The demand for coal, happily, has increased because of the need for electric energy. The coal will then be produced by the big mines, the gassy mines, the mines which have permissible equipment, which experience ignitions, and which cause black lung.

Forty percent of the coal produced in the United States, according to the record of the committee, is produced by about 15 companies.

Many of the men thrown out of employment in the small mines would be out of employment forever. Many are older men who have been released from the big coal mines. But even the employable coal miners would have to find work.

Such miners, if they could find jobs at all, would have to go to the big mines. They would be forced into mines holding greater danger for them than the nongassy mines in which they work today.

What else would happen? Of course, the operators would suffer economic loss. They have invested such capital as they have in these mines. They provide employment to the people of the community. They pay their taxes in the community and State. Economic loss would follow—to the miners, to the coal operators, to the community, and to the State.

Another effect would be to lock up forever the wealth and resources of many sections of my State and many sections of the country.

Suppose the head of a family has owned 100 acres of mountain land, or 50 or 200, or perhaps 300, all his life, and perhaps his father before him; the only assets were the timber on the land and the coal under the land. Many lost those rights years ago, when the big companies

from other parts of the United States bought their land for \$1 an acre, or 50 cents, bought their white oak trees for 50 cents each, bought their land with coal.

But he who owns even 100 acres or 200 acres, and had hoped someday to mine it himself or with his sons, nephews, and brothers, if he should want to lease it to a mine operator, his resource would be locked up by the terms of this bill. No one could afford to operate the smaller tracts.

The analogy is not on all fours, but it would be something like passing a law permitting farming in the western part of my county, Pulaski County, a rather rich agricultural section, but prohibiting farming in the eastern section of the county. It is not a true analogy, but it gives some idea of the way this part of the bill would lock up the resources of many sections of our States, and affect our communities.

The small mines operate with low capital. They employ the people of the community. Auxiliary industries are affected by them, and they all will be hurt. The end effect will be no great contribution to safety, but the closing down of the mines, with all the attendant economic loss and unemployment, and the driving of the employable miners into the dangerous, gassy mines.

I do not think it is a wise thing to do. I have offered this amendment to preserve the classification, and, if it should be agreed to, I would offer a second amendment which would require the Secretary of the Interior to present to Congress, at 2-year intervals, a report upon the safety conditions in all mines in the United States, with his recommendations as to what should be done to assure greater safety.

If it should be shown—which I do not believe it will be—that there is danger in these nongassy mines which requires an installation of permissible machinery, of course, I would want the Senate to accept it.

One final statement, and then I shall close. I have testified on this subject twice this year, once before the House of Representatives subcommittee and once, due to the courtesy of the Senator from New Jersey (Mr. WILLIAMS) before his committee in an executive session. I have been asked on several occasions, and it has been suggested, that one who offers this type of amendment has more concern for the economics of the situation than he does for human life and safety.

I can only say that I have consistently supported safety measures. I have had included in this bill three measures which the committee thought improved the administration bill; and, of course, I intend to support other portions of the bill, most of which contribute to safety.

Why do we not place greater emphasis on life and safety in the gassy mines? Suppose I were to offer my amendment by which the Secretary of the Interior is required to close down any mine in which a second ignition or gas explosion has occurred since July 1, 1952? Whom would it affect?

It would affect some 48 of these 400 mines, some of which the record shows

have already had as many as 18 explosions.

Who owns those mines? Forty percent of the coal is mined by a few of the greatest corporations in this country. I would like to see if the Senate would vote to close them. I hope we will not have to pass on that. But if in talks of placing human safety and life above economic interests, in respect of the nongassy mine we will have to do the same with these big mines in which people have been killed year after year. But, I doubt if the Senate will vote for that.

Mr. COOK. Mr. President, will the Senator yield?

Mr. COOPER. I yield.

Mr. COOK. Mr. President, much has been said since the Farmington, W. Va., disaster of last year about the need for a stricter Federal coal mine safety law. During the same period rising concern over the prevalence in coal miners of pneumoconiosis, or black lung, has created a similar demand for stricter mine health laws.

The Committee on Labor and Public Welfare has reported a strong bill containing both health and safety features. I commend the committee for its concern for the welfare of our Nation's coal miners. However, one provision of the bill, eliminating the current distinction between gassy and nongassy mines, will have a disastrous effect on the small mine operators and miners of the Appalachian region while not making any contribution to improving safety conditions. The overwhelming majority of mines in Kentucky are both small and nongassy.

Historically, cries have been made by businessmen about various social legislation, such as wage and hour laws, that the effect of enacting such new measures would be to drive the owner out of business. It is true that the small operators—a small operator owns a mine which employs 14 or fewer miners—of my State and surrounding States are making essentially this argument against the provision in the committee bill which would eliminate the gassy-nongassy distinction. As I have said, this argument has been used to impede the progress of valuable social legislation in the past, but this is not the case with this argument as applied to the attempt to eliminate the distinction between gassy and nongassy mines.

What is the effect of eliminating the distinction? Under the current law, gassy mines are required to use permissible equipment, that is, equipment which is covered so that sparks will not ignite any gas which might be present. Permissible equipment is not now required in mines which are classified nongassy. Elimination of the distinction would require operators of the nongassy mines to purchase permissible equipment at a cost small operators argue would be prohibitive. I have studied the figures and assessed the economic impact of such action and I agree with their conclusion.

As a Senator from a State which has approximately 1,000 small mines—only 32 of which are gassy—and a great many miners who derive their living from these mines, I want an effective coal mine safety bill. If the elimination of the gassy-

nongassy distinction would make any contribution to improving unsafe conditions in our mines I would favor it. But as my colleague, Senator COOPER, recently pointed out, between 1952 and 1969 there were only 52 explosions in nongassy mines; only four were fatal, and in each of the fatal cases the explosion was caused by open flames—matches, cigarette lighter or open lamps—resulting from violation of existing laws. In other words, these were explosions that could have been avoided by enforcement of existing laws and would not have been averted by the proposed changes in the law.

I do not think that General Motors has a record like that. I do not think that the Ford Motor Co. has a record like that. And I do not think that the Florida Power Co. has a record like that.

Senator COOPER further pointed out that during the same period there have been 381 explosions, killing 374 miners and injuring 427 in mines classified as gassy.

My senior colleague from Kentucky yesterday placed in the RECORD an editorial appearing in the August 23, 1969, edition of the Louisville Courier Journal supporting preservation of the gassy-nongassy distinction. In a letter I mailed to all Senators on September 5, I included that editorial which describes very well the fallacy of the argument that safety requires elimination of the distinction. As I pointed out at that time, the Courier Journal is not a business-oriented newspaper. It is concerned, as all of us are, about preserving one of the few remaining employers in the poverty-ridden Appalachian areas of our country. It would seem to be the height of inconsistency to advocate measures designed to alleviate the plight of the Appalachian poor and then support a provision which might significantly increase the unemployment rolls in the same region.

I support the substitute amendment to S. 2917 offered by my senior colleague including, of course, the preservation of the current distinction between gassy and nongassy mines. The distinction must be maintained not solely for the economic benefit of the small operators of Kentucky, but also to preserve the over 100,000 jobs either in or related to the mines which might be lost by enacting into law a provision making no contribution to improving safety in small nongassy mines.

Mr. COOPER. Mr. President, I yield the floor.

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The bill clerk proceeded to call the roll.

Mr. BYRD of Virginia. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BYRD of Virginia. Mr. President, yesterday, I along with 90 of my Senate colleagues, voted to amend the pending Federal coal mine health and safety bill. That amendment offered by the two Senators from West Virginia, will provide

health disability benefits to coal miners who, as a result of pneumoconiosis or "black lung," are totally disabled and unable to be gainfully employed.

It is an interim compensation bill, pending a detailed study of a pressing and difficult problem.

Those qualifying for these disability benefits—the totally disabled miner, his widow, or surviving dependents—will be eligible for amounts varying from \$1,635 annually for a disabled individual up to \$3,264 annually for a disabled individual with three or more dependents. These health disability benefits will be on a temporary and limited basis, in cooperation with the States, while studies are being conducted as to the best long-range approach to this problem.

"Black lung" presently afflicts approximately 20 percent of our retired coal miners and roughly 10 percent of the active coal miners. The committee reports:

There are a significant number of inactive coal miners living today who are totally disabled and unable to be gainfully employed due to the development of complicated pneumoconiosis while working in one or more of the Nation's coal mines; that there also are a number of surviving widows and children of coal miners whose death was attributable to this disease.

My State of Virginia recognized the need of these victims of "black lung" in 1968 and passed legislation to assist them; there is, however, no coverage for victims who were afflicted prior to that legislation and in some States there is no assistance whatever to such disabled individuals or their dependents.

This amendment will, however, do more than merely provide interim relief to these previously noncovered individuals. It will authorize funds for research and development in the area of coal mine health and safety; more specifically, it will endeavor to develop entirely new methods of protecting miners from respirable dust. This, Mr. President, is most important, for a disability compensation payment can never be an adequate alternative to good health.

Another area of research will be to improve and develop technology to reduce roof fall hazards, which is the single leading killer in our coal mines today, accounting for between 50 percent and 60 percent of all underground fatalities.

Yes, Mr. President, I support this amendment, for I hope the research which it authorizes will be the "ounce of prevention" that avoids the necessity for "a pound of cure."

The proposal should be a reasonable first step toward the long-range solution of a difficult problem.

AMENDMENT OF THE LABOR-MANAGEMENT RELATIONS ACT OF 1947

Mr. WILLIAMS of New Jersey. Mr. President, I ask the Chair to lay before the Senate a message from the House of Representatives on S. 2068.

The PRESIDING OFFICER (Mr. GURNEY in the chair), laid before the Senate the amendment of the House of Representatives to the bill (S. 2068) to amend section 302(c) of the Labor-Man-

agement Relations Act of 1947 to permit employer contributions to trust funds to provide employees, their families, and dependents with scholarships for study at educational institutions or the establishment of child-care centers for preschool and school-age dependents of employees which was to strike out all after the enacting clause, and insert:

That section 302(c) of the Labor-Management Relations Act, 1947, is amended by striking out "or (6)" and inserting in lieu thereof "(6)" and by adding immediately before the period at the end thereof the following: "; or (7) with respect to money or other thing of value paid by any employer to a pooled or individual trust fund established by such representatives for the purpose of (A) scholarships for the benefit of employees, their families, and dependents for study at educational institutions, or (B) child care centers for preschool and school age dependents of employees: *Provided*, That no labor organization or employer shall be required to bargain on the establishment of any such trust fund, and refusal to do so shall not constitute an unfair labor practice: *Provided further*, That the requirements of clause (B) of the proviso to clause (5) of this subsection shall apply to such trust funds".

CHILD-CARE CENTERS—VITAL FIRST STEP

Mr. YARBOROUGH. Mr. President, I am pleased to support the passage of the bill which would allow the establishment of child-care centers and scholarships for the education of children of employees through collective bargaining. The present limitation in section 302 of the Taft-Hartley law has worked hardships in not allowing the establishment of such scholarships or child-care centers. As the original sponsor of this measure when I was chairman of the Subcommittee on Labor and a cosponsor of this bill, I am pleased that both the House and the Senate have finally acted and that with the passage of the bill it will be possible for labor and management to sit down together, if they so desire, and create child-care centers which will increase the labor force in areas where they are needed the most.

I understand that the Amalgamated Clothing Union of the men's garment industry is ready to establish funds for these purposes as soon as the bill becomes law. I commend them for their foresight and interest in the general welfare of our country.

If private groups such as these can act together, there is no need for the Federal Government to act and impose its solution, which may not achieve the needs in every case. Through collective bargaining, the individual requirements of each group can be provided in the best interests of everyone.

Mr. WILLIAMS of New Jersey. Mr. President, I move that the Senate concur in the amendment of the House.

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from New Jersey.

The motion was agreed to.

FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969

The Senate resumed the consideration of the bill (S. 2917) to improve the health and safety conditions of persons working in the coal mining industry of the United States.

Mr. WILLIAMS of New Jersey. Mr. President, the senior Senator from Kentucky has raised a major issue which concerns one of the important measures that the committee has adopted to control methane ignitions and explosions. I cannot agree with the distinguished Senator's position, and I believe that a complete explanation of the issue and what the bill does is warranted at this point.

Since January 1941, 1,142 miners have been killed and 965 miners have been injured in the 683 underground coal mine ignitions and explosions which have been reported to the Bureau of Mines. These ignitions and explosions have been among the major causes of death and injury to coal miners.

In order to reduce significantly and ultimately eliminate this dangerous hazard to the safety of every miner, the committee bill, S. 2917, recommends numerous provisions which require operators to initiate procedures which, if properly followed, have the twofold purpose of controlling methane in the atmosphere in underground mines and eliminating the ignition sources of methane.

First, let us understand the hazardous nature of methane gas. Explosive mixtures are formed when the methane concentrations in the mine atmospheres range from 5 to 15 percent. The energy required for ignition is extremely minute.

When methane gas is present in a coal mine, in sufficient quantities, a frictional spark such as one emanating from a motor on a piece of equipment, or one caused by metal striking rock, or even one caused by the flint of an ordinary cigarette lighter, can provide the energy necessary to ignite the methane with the resulting ignition and explosion and death and injury to the miners.

As the knowledgeable Senator from Kentucky (Mr. COOPER) has noted, the potential for an explosion can increase with the presence of coal dust suspended in the atmosphere. As the amount of coal dust in the atmosphere increases, the amount of methane needed for an explosion may decrease to much less than 5 percent.

In 1952, Congress, in recognizing the importance of preventing methane ignitions and explosions, established some measures designed to prevent the accumulation of methane in explosive quantities and to eliminate the sources of methane ignition. Although the measures required by the 1952 act are deficient, that act does require that—

All mines must ventilate the working places;

In gassy mines, air passing through an abandoned area which cannot be inspected cannot be used to ventilate the face;

In gassy mines, preshift examinations for methane must be made 4 hours before the shift, and in nongassy mines, once a day;

Pillar workings in gassy mines must be tested for methane before a roof fall is made.

Perhaps that statement should be explained. This is a roof fall that is produced in the mining operation. As they mine the corridors there are left the supporting pillars, and mining back to and

through the corridors these pillars are mined out to the point that they can be and continue to be safely mined. But this area, the pillar that is left finally, is not enough to support and there is a roof fall that is known to be part of the operation and will occur.

And further, that rock dusting be used to prevent propagation of explosions. Rock dusting means the penetration of the sides of the mines with a dust that will help to prevent the explosion of methane gas.

Electric face equipment and junction and distribution boxes in gassy mines, with some exceptions, must be permissible, and trolley and feeder wires cannot extend beyond the last open cross-cut;

Smoking and open flames in gassy mines be prohibited; this is one area where there has been agreement by the Senator from Kentucky that even in nongassy mines, smoking should be eliminated.

Tests for methane be made after blasting; and

The drilling and sealing of oil and gas wells be done by the owners thereof under State laws.

Now those are what was included back there in 1952. Let us look at the record to see what followed that. Were these provisions successful in reducing the ignitions?

Since enactment of the 1952 act through June of this year—and these, of course, are most relevant findings—there were 454 methane ignitions and explosions in underground coal mines. This is almost double the 229 ignitions and explosions that occurred during the 1941-52 period. These pre-1952 ignitions and explosions killed 401 miners and injured 501. Although fewer miners have been killed and injured in methane ignitions and explosions since 1952, it is still a very hard record.

The causes of these ignitions are legion. They are smoking, the use of matches to light explosives, the improper use of explosives, the flame safety lamp, trailing cables, locomotives, welding, and numerous other causes.

The committee was shocked at this record. It was clear to us, first, that the safeguards in the 1952 act were inadequate to control methane before it reaches the explosion stage in all mines and, second, that the requirements of the 1952 act did not eliminate the causes of methane ignitions and explosions. We concluded that greater safeguards were needed in this area. Halfway measures are no longer acceptable. We must control the methane and we must eliminate the causes. Accordingly, the bill—

Requires that all mines be mechanically ventilated and that the ventilation equipment be inspected daily;

Increases the minimum quantity of air reaching the face workings;

Requires the use of brattice cloths or other approved devices to improve ventilation at the face; the brattice cloth, of course, is used to direct the flow of air so that it will reach the most difficult and hazardous place in the face of the mine;

Increases the frequency of testing for methane;

Prohibits, in ventilation of face work-

ings, the use of air that passes through an abandoned area that is inaccessible or unsafe for inspection;

Requires sealing or ventilating by bleeders of abandoned areas or areas where pillars have been removed;

Requires Federal inspectors at especially hazardous mines; these are inspectors who remain in residence at the most hazardous mines.

Improves present standards relative to rock dusting to prevent propagation of methane ignitions;

Prohibits the use of open flames and smoking;

Provides greater protection in the use of trailing cables;

Requires continuous testing for methane while welding;

Provides greater safeguards in the use, storage, and transportation of explosives;

Requires that operators make more diligent searches for oil and gas wells, and that operators provide and maintain larger barriers around such wells; and

Requires that flame safety lamps be approved and properly maintained at each mine in accordance with specifications to be prescribed by the Secretary.

These are some of the very detailed and comprehensive safeguards included in this bill. There were two other causes of ignitions that aroused considerable concern.

First, sparks from the bits of the continuous miner and from the cutting machine. There have been 155 such ignitions since 1952, many of which have occurred since the late 1950's. These have killed three and injured 141.

Unfortunately, the technology here is not very advanced. We were informed by the Bureau of Mines that a device to suppress these ignitions as they occur is now being developed and should be available very soon. Accordingly, with this in mind and with the idea of accelerating this process, we directed the Secretary to act promptly on this research and to require such a device as soon as possible. Furthermore, the committee expects immediate attention to be given to complete prevention of these ignitions.

At this point, I might also dwell on the flame safety lamp problem. As a device to measure and detect methane, it is not satisfactory. Miners using this lamp, despite claims to the contrary, are unable to measure the methane in the mine atmosphere at the low percentages required either in the 1952 act or in this bill, except under ideal conditions which may exist in the laboratory but are not found in the mines.

I remember my own surprise, several months ago, when I watched this lamp being used in a Pennsylvania mine. This lamp is a rather simple device. It is a flame in a glass enclosure which has measured markings, like a thermometer. The higher the flame goes the more methane gas there is in the atmosphere. The foreman raised the lamp up in the air and pointed out to me and to other members of the committee who were there that the flame reached only as high as the 1-percent methane marking. Now this chap happened to be a little bit taller than I am. From where I was looking, the flame appeared to be as high as the 1.5-percent marking.

Now that is a significant difference.

Because at 1.5-percent methane, the law requires the miners to be withdrawn from the mine.

The point is that these lamps give different readings to different people. The accuracy of the lamp also depends on whether it is properly set by the man who uses it, and that setting is necessarily being changed all day long. So, as I have indicated, research is necessary.

Furthermore, the record is clear that the flame safety lamps in many instances are not properly maintained. Indeed, since 1952 there have been 5 miners killed and 24 injured in 17 ignitions caused by flame safety lamps. This emphasizes the need to maintain these lamps properly, and to be sure of that each day. This is required under the definition of the term "permissible" in section 219(4) of S. 2917.

One promising area of research now underway in the Bureau to control methane is a program of methane drainage in advance of mining. The committee recognized the potential of this research effort and directed that it, too, be accelerated, with primary emphasis on safety aspects of the research.

Mr. COOK. Mr. President, will the Senator yield?

Mr. WILLIAMS of New Jersey. I am happy to yield to the Senator from Kentucky.

Mr. COOK. During the hearing before the House committee on September 9, Mr. J. H. Musgrove, assistant commissioner of the Kentucky Department of Mines and Minerals, testified. In his testimony, Mr. Musgrove reviewed the number of fatal coal mine accidents in Kentucky from July 1, 1952, to June 1969, and listed their causes. During this 17-year period, a total of 837 fatalities from all causes occurred in our underground Kentucky coal mines. Of this number, the major causes are as follows: Some 517 fatalities are attributed to roof falls; 131 fatalities are attributed to haulage; 61 fatalities are attributed to accidents involving electrical equipment; 34 fatalities are attributed to machinery; 9 fatalities are attributed to gas or dust explosions in gassy mines. There are no fatalities—and I emphasize this point—attributed to gas or dust explosions during this period in mines classed "nongassy."

Mr. President, in this whole argument, I think it is proper and right to work with all of the means and with all of the individual capacities that we can, but it is disturbing, in attempting to work out some of these problems, that we have some people who are vitally interested in this matter who, I am afraid—and I do not say this in regard to the Senator from New Jersey at all, and I want that absolutely understood, but I refer to some people who may have talked with the Senator from New Jersey—may never have been in a coal mine in their lives.

Mr. WILLIAMS of New Jersey. Mr. President, will the Senator yield?

Mr. COOK. I yield.

Mr. WILLIAMS of New Jersey. I did not hear all that the Senator said. The Senator was not including me?

Mr. COOK. No, under no circumstances.

Thus, out of a total of 837 fatalities

in Kentucky during the 17-year period, none of these fatalities occurred as a result of a gas or dust explosion in a nongassy mine.

Bear in mind that there are over 900 nongassy mines as compared with 32 gassy mines in Kentucky. These statistics further emphasize my argument

that, with respect to ignitions or explosions caused by methane, the safest mines are nongassy mines. More emphasis, in my view, should be placed on reducing the fatalities caused by roof falls, which were the cause of more than 60 percent of Kentucky's coal mine fatalities during this 17-year period.

Mr. President, I ask unanimous consent that a chart from the Kentucky Department of Mines and Minerals be placed in the RECORD.

There being no objection, the chart was ordered to be printed in the RECORD, as follows:

FATAL COAL MINE ACCIDENTS, JULY 1, 1952-JUNE 3, 1969 INCLUSIVE (17 YEARS)

Year	Falls of roof	Haulage	Elec- tricity	Machinery	Gas or dust ex- plosions (gassy mines)	Gas or dust ex- plosions (nongassy mines)	Miscel- laneous	Explo- sives and blasting	Coal bump	Fire	Surface	Total	Strip	Grand total
1952 (July)	15	9	1	3				11		4	3	36		36
1953	39	10	3	2							2	56	3	59
1954	35	5	4	5					1		4	54		54
1955	33	13	4				1	1			3	55	2	57
1956	47	9	8	2	1		1	2			4	74	1	75
1957	40	10	4	1				2			2	59	2	61
1958	29	7	3	2				1		1	5	48	1	49
1959	26	7	4	1				1			3	42	1	43
1960	32	7	8	3			1	1			3	55	2	57
1961	43	5	2	1				1			2	55	0	55
1962	19	11	3	1	1			1			5	41	0	41
1963	25	5	1	1					1			33	0	33
1964	31	6	3	1				1			2	44	3	47
1965	25	6	1	3					1		1	37	2	39
1966	22	9		1			1	3			1	37	3	40
1967	25	5	4	2	1			1			2	46	4	50
1968	22	5	7	3				1			3	50	6	56
1969 (June)	9	2	1	2				1				15	1	16
Total	517	131	61	34	9	0	5	26	4	5	45	837	31	868
Percentage of total underground	62	16	7	4	1		.6	3	.5	.6	5			
Average per year	30.40	7.70	3.58	2.00	.53	0	.29	1.52	.24	.29	2.65			

1 Blow through.
2 Cap. air.
3 Gas-locomotive-old works—Gassy mine.
4 1 blow through; 1 put shot off on.
5 Blasting fuse-caps set off with cap lamp.
6 Short fuse.

7 Fireboss-inspection jeep—Gassy mine.
8 Improper handling—Caps open light.
9 (1) Flying material from shot, and (2) improper handling.
10 2 occurrences—Gassy mines.
11 Fuse—Caps (open sparks).
12 Improper handling and storage.

Mr. COOK. Mr. President, further, in 1963, when Mr. O'Leary was testifying before the House committee, Representative Roosevelt asked him certain questions, and I wish to read those questions into the RECORD:

Mr. O'LEARY. I would say that there is a danger of explosion in every type of mine, and there have been some legislative proposals, I think before this committee, to classify all mines as gassy.

Mr. ROOSEVELT. Would you support that?
Mr. O'LEARY. No, sir.

Mr. ROOSEVELT. You do not recommend it?
Mr. O'LEARY. I wouldn't recommend that.

Mr. ROOSEVELT. Why? Why wouldn't you recommend it, if it is so? I mean, in one sentence, you tell me that there is a danger of an explosion in every type of mine.

Mr. O'LEARY. There is always the possibility of explosion in any type of mine.

Mr. ROOSEVELT. And then in the next sentence you told me that you would not be in favor of so saying.

Mr. O'LEARY. Well, I think in many cases this danger is quite remote. This is an academic danger in many cases.

Mr. ROOSEVELT. Now where can we draw the line when it is non-academic and when it is real?

Mr. O'LEARY. When we classify the mine as gassy.

Mr. President, the chart that has been put on each Senator's desk lists methane ignitions and explosions in nongassy mines, 1941 through 1969; 87 ignitions, 84 miners killed, and 116 miners injured, are listed.

The chart would be complete if it also listed the same situation during the same period from 1941 through 1969 on gassy mines. Had the chart been complete, it would have shown that the number of ignitions in gassy mines was not 87, but

600; that the number of miners killed was not 84, but 1,054; and that the number of miners injured was not 116, but 858.

I think if the comparison were made and the complete chart were presented, not only as to the nongassy mine situation, but the gassy mine situation, it would bring the matter more accurately to the attention of Members of the Senate and I think, in all fairness, would put it in a truer perspective.

Mr. President, I yield the floor.

Mr. WILLIAMS of New Jersey. Mr. President, with further reference to the bill before us, the bill contemplates that additional measures will probably be needed in the future to control methane and prevent methane ignitions and explosions. The research programs just mentioned and other efforts of the Bureau of Mines in this area, if fruitful, will form the basis for action by the Secretary to promulgate additional regulations on this subject.

Now, we come to the major problem—electrical face equipment and the nongassy classification.

The committee followed the recommendation of the Department of the Interior that mines, whether classed as gassy or nongassy under the current law, be treated alike in providing these new and additional safeguards to control methane and prevent ignitions.

Since 1952 the Federal Coal Mine Safety Act, as amended, has contained special provisions allowing the use of electric face equipment which is not sparkproof; that is, has not met the standards of the Bureau of Mines, in mines that have never had an ignition

or have never been found to have methane of more than 0.25 percent. In addition, the act has specifically provided that many of these particular safeguards, such as the frequency of preshift examinations, and the prohibitions of smoking and the use of open flames underground applied to only one class of mines; namely, those which have had methane ignitions or in which there was methane of 0.25 percent or more.

Thus, the so-called nongassy mines—again those that have never had an ignition or have never been found to have methane of more than 0.25 percent in the mine atmosphere—have received special treatment under the premise of the 1952 act that a mine need not adopt special measures to control methane and prevent ignitions until there was "evidence of gas." The committee believed, however, that, based on the record, this premise was not valid and, therefore, reached the decision to treat all mines alike.

The committee's decision to do so, however, presented one of the most perplexing problems raised by this legislation. The principal opposition to this uniform treatment of all underground coal mines came from the small, non-gassy-mine operators, particularly those from eastern Kentucky, southern West Virginia, Virginia, and Tennessee. These operators, who want the special treatment for nongassy mines under the 1952 act continued, objected primarily to the requirement in the bill that large electric face equipment in these mines must be made permissible; that is, spark proof.

These small, non-gassy-mine operators, who produce less than 8 percent of the

Nation's coal and employ between 15,000 and 20,000 employees, contend that this requirement will be costly to the operators of these mines and cause many of them to close their mines. They further contend that the history of gas being detected in these mines, either by ignition or air analysis during inspections, does not warrant such a requirement.

Many hours have been spent by the committee and its staff in attempting to understand the issue, the background of the problem, the arguments pro and con, the economic impact, and finally, and most importantly, its impact on the miner's safety. The subcommittee devoted almost 2 days of hearings to this problem. Based on all the information available, some of which was conflicting, the committee concluded that the special treatment granted nongassy mines for the past 17 years relative to the use in such mines of sparkproof electric face equipment should not be continued from the standpoint of the miner's safety. It is important that my colleagues in the Senate understand the reasons for the committee's conclusions.

Both the previous administration, in January 1969, and the present administration, in March 1969, in proposing coal mine health and safety legislation, specifically proposed that all mines should

be "subject to the same standards because all underground coal mines are potentially gassy." Both administrations were reiterating the position taken by the Bureau of Mines as long ago as 1926. I believe the senior Senator from Kentucky recognizes that all mines whether classified gassy or nongassy, are potentially gassy.

It is clear from the history of ignitions and explosions in the Nation's coal mines that the exceptions permitted by the 1952 Federal Coal Mine Safety Act, as amended, are not warranted. There is neither a scientific nor technical basis for these exceptions. The record shows that no one can predict when gas may be found in such quantity in any mine to cause considerable damage.

Past history shows that mines, once classified nongassy, do suddenly have sufficient accumulations of methane gas to cause ignitions and explosions. As the record demonstrates, this has happened at least 87 times since 1941. Let me stress that point—87 mines in the past 28 years have been classified nongassy, yet they have had sufficient methane gas to cause an explosion and, as a result of these 87 gas ignitions, in so-called nongassy mines, 84 miners were killed and 111 were injured.

These dangers exist in all nongassy

mines, whether they are large or small; whether they are drift mines, slope mines, or shaft mines. As the record demonstrates, of the 55 methane ignitions that have occurred in nongassy mines since the 1952 Safety Act, over half—30 to be exact—occurred in small mines; almost half—22 to be exact—occurred in drift mines. In some of these 55 ignitions, fewer than five miners were employed in the mine. As recently as August 1968, a methane gas ignition occurred in a small nongassy drift mine, let me repeat that, a small, nongassy drift mine, in Kentucky, injuring three miners. On two previous inspections, the methane gas in the atmosphere at the mine registered less than 0.25. On one inspection, it registered 0.15, on the other, no methane gas whatsoever was detected. Yet, on August 5, 1968, a methane gas ignition occurred in that nongassy mine.

In the last 4 years alone, 168 nongassy mines had to be reclassified as gassy. Sixty-nine of these were small mines, and 117 of the 168 were drift mines.

I ask unanimous consent that the Bureau of Mines analysis of these reclassifications be printed in the RECORD at this point.

There being no objection, the analysis was ordered to be printed in the RECORD, as follows:

203(C) ORDERS, GASSY CLASSIFICATION, ISSUED FROM 1964 THROUGH 1968 BY DATE, STATE, REASON, AND AIR ANALYSIS FOR THE 2 PREVIOUS INSPECTIONS

DISTRICT A

Date of gassy classification	State	Size of mine	Type of opening	Reason for gassy classification	Air analysis (methane) 2 previous inspections	
Feb. 18 1964	Pennsylvania	Small	Slope	State-by letter, 1		
Feb. 26 1964	do	Large	Drift	do 1		
June 13 1964	do	do	Slope	0.58	(?)	(?)
Sept. 16 1964	do	do	Drift	1.05	0.21	0.09
May 23 1964	do	do	do	State-by letter, 1		
Feb. 4 1965	do	Small	Slope	do 1		
Feb. 17 1965	do	do	do	do 1		
Mar. 4 1965	do	Small	do	do 1		
Mar. 29 1965	do	do	do	do 1		
June 8 1965	do	do	do	do 1		
June 15 1965	do	do	do	do 1		
July 22 1965	do	do	do	do 1		
July 29 1965	do	Large	Drift	do 1		
Sept. 24 1965	do	Small	Slope	do 1		
Oct. 7 1965	do	do	do	do 1		
Oct. 26 1965	do	do	do	do 1		
Dec. 3 1965	do	do	do	do 1		
Jan. 3 1966	do	Large	Drift	do 1		
Feb. 14 1966	do	Small	Slope	do 1		
May 3 1966	do	do	do	0.83	0.00	0.00
May 20 1966	do	do	Drift	1.34	0.08	0.00
May 27 1966	do	do	do	State-by letter, 1		
July 15 1966	do	do	Shaft	do 1		
Sept. 9 1966	Pennsylvania	Small	Drift	0.40	0.00	0.00
Nov. 3 1966	do	do	do	0.39	0.15	0.11
Nov. 28 1966	do	do	do	0.32	0.03	
Nov. 30 1966	do	do	Shaft	Interconnected	(?)	(?)
May 23 1967	Pennsylvania	Large	Drift	State-by letter, 1		
Sept. 26 1967	do	Small	Slope	do 1	0.66	0.00
Sept. 27 1967	do	do	do	Interconnected	(?)	(?)
Do	do	do	do	do	(?)	(?)
Oct. 6 1967	do	Large	do	State-by letter, 1		
May 29 1968	do	Small	Slope	do 1		
Sept. 12 1968	do	do	do	do 1		
Nov. 4 1968	do	do	do	Interconnected	(?)	(?)
Apr. 1 1967	West Virginia	Large	Drift	State-by letter, 1		
Nov. 8 1968	do	do	do	do 1		
May 21 1964	Ohio	do	do	do	1.76	0.00
May 26 1966	do	Small	do	do	0.26	(?)
Dec. 22 1966	do	do	Shaft	do	0.50	0.07
June 26 1967	do	Large	Slope	do	0.29	0.08
July 26 1967	do	do	Drift	State-by letter, 1		
Mar. 29 1968	do	do	do	do	0.42	0.06
May 8 1968	do	do	Slope	do	0.30	(?)

DISTRICT B

June 8 1964	West Virginia	Small	Drift	0.26	0.06	0.05
Aug. 31 1964	do	do	do	0.29	0.20	0.06
Sept. 23 1964	do	Large	do	0.35	0.00	0.05
Oct. 6 1964	do	do	do	0.70	0.22	0.05
Oct. 30 1964	do	do	do	0.31	0.13	0.07
Nov. 4 1964	do	do	do	Interconnected	0.00	
Jan. 27 1965	do	do	do	do	(?)	(?)
Feb. 24 1965	do	do	do	0.26	0.00	
Feb. 24 1965	do	do	do	Interconnected	0.00	0.00
Feb. 24 1965	do	do	do	do	0.04	0.00
Feb. 25 1965	do	do	do	do	0.00	0.00
Mar. 9 1965	do	Small	do	do	0.00	0.00
June 3 1965	do	Large	do	0.32	0.10	0.04
Sept. 8 1965	do	do	do	0.78		
Sept. 27 1965	do	do	do	0.91	0.05	
Dec. 20 1965	do	do	do	0.49	0.19	
Feb. 2 1966	do	Small	do	Interconnected	(?)	(?)
May 24 1966	do	Large	do	do	0.47	
June 14 1966	do	do	Shaft	1.46		
June 16 1966	do	Small	Drift	Interconnected		
Sept. 8 1966	do	do	do	do	(?)	(?)
Dec. 8 1966	do	do	do	0.43	0.22	0.08
Jan. 16 1967	do	Large	do	Interconnected	0.00	
Feb. 13 1967	West Virginia	Large	Drift	Interconnected	0.00	
Feb. 23 1967	do	Small	do	do	(?)	(?)
Mar. 15 1967	do	Large	do	do	0.61	0.00
May 8 1967	do	do	do	do	0.29	0.03
May 11 1967	do	Small	do	Interconnected	(?)	(?)
Aug. 22 1967	do	do	do	do	(?)	(?)
Sept. 25 1967	do	Large	do	do	0.92	0.19
Sept. 28 1967	do	Small	do	do	0.26	0.05
Oct. 24 1967	do	do	do	Interconnected	(?)	(?)
Do	do	Large	do	do	0.92	0.13
Nov. 8 1967	do	do	Shaft	do	0.51	0.00
Nov. 21 1967	do	do	Drift	do	0.48	0.05
Nov. 28 1967	do	do	do	do	0.89	0.01
Nov. 29 1967	do	do	do	do	0.70	0.22
Dec. 4 1967	do	Small	do	Interconnected	0.00	0.00
Dec. 6 1967	do	Large	do	do	0.97	0.14
Jan. 18 1968	do	do	Shaft	do	0.52	(?)
Feb. 13 1968	do	do	Drift	do	0.30	0.00
Apr. 22 1968	do	do	do	do	0.28	0.07
July 29 1968	do	Small	do	do	0.28	0.01
Sept. 16 1968	do	Large	do	do	0.25	0.00
Nov. 7 1968	do	do	do	do	0.33	0.06

See footnotes at end of table.

203(f) ORDERS, GASSY CLASSIFICATION, ISSUED FROM 1964 THROUGH 1968 BY DATE, STATE, REASON, AND AIR ANALYSIS FOR THE 2 PREVIOUS INSPECTIONS—Continued

DISTRICT C

Date of gassy classification	State	Size of mine	Type of opening	Reason for gassy classification	Air analysis (methane) 2 previous inspections		Date of gassy classification	State	Size of mine	Type of opening	Reason for gassy classification	Air analysis (methane) 2 previous inspections	
Dec. 17, 1965	Alabama	Large	Drift	0.29	0.24	0.00	Jan. 23, 1967	Virginia	Small	Drift	0.31	0.10	0.14
July 1, 1966	do	Small	do	0.37	.10	.16	Mar. 20, 1967	do	do	do	0.27	.00	.00
July 13, 1966	do	do	do	Interconnection	.05	.00	Do	do	do	do	0.49	.00	.22
Jan. 3, 1968	do	do	do	State—by letter. ¹	.00	.00	May 1, 1967	do	do	do	0.44	.00	.07
Nov. 4, 1965	Tennessee	Large	Drift	0.31	.00	.00	May 24, 1967	do	Large	do	0.27	.15	.07
July 31, 1967	do	Small	do	0.56	.14	.05	May 25, 1967	do	Small	do	0.56	.00	.03
Aug. 23, 1968	do	do	do	0.27	.00	.00	June 26, 1967	do	do	do	0.36	.00	.16
July 15, 1968	do	do	do	0.51	.07	.05	Aug. 23, 1967	do	do	do	0.29	.14	.04
May 17, 1968	do	do	do	State—by letter. ¹	.00	.00	Aug. 31, 1967	do	do	do	1.49	.00	.15
Sept. 9, 1965	Kentucky	Large	Slope	do ¹	.00	.00	Sept. 28, 1967	do	Large	do	0.44	.00	.10
Apr. 21, 1965	do	do	Drift	1.72	.07	.00	Oct. 9, 1967	do	do	do	0.40	.00	.00
Apr. 5, 1966	do	do	do	Safety lamp and methane detector.	.00	.05	Oct. 11, 1967	do	do	do	2.09	.09	.05
Feb. 16, 1966	do	Small	do	0.44	.00	.00	Do	do	do	do	1.26	.10	.00
Jun. 12, 1967	do	Large	do	0.29	(?)	(?)	Nov. 9, 1967	do	Small	do	0.47	.00	.00
Dec. 27, 1967	do	do	do	0.34	.10	.15	Dec. 21, 1967	do	do	do	0.26	.19	.15
Jun. 10, 1968	do	do	do	0.38	.12	.05	Jan. 22, 1968	do	Small	do	0.53	.00	.00
Jul. 18, 1968	do	do	do	0.34	.00	.00	Feb. 15, 1968	do	Large	do	0.51	.07	.23
Aug. 5, 1968	do	Small	do	Ignition	.15	.00	Mar. 19, 1968	do	do	do	0.75	.00	.00
Mar. 10, 1964	Virginia	Large	Shaft	0.33	(?)	(?)	May 1, 1968	do	do	Shaft	State	(?)	(?)
Nov. 3, 1964	do	do	Drift	State—by letter. ¹	.05	.05	May 6, 1968	do	do	Drift	0.30	.00	.00
Apr. 9, 1965	do	do	do	0.34	.02	.05	May 15, 1968	do	Small	do	0.25	.00	.00
Do	do	do	do	Interconnection	.00	.00	May 22, 1968	do	do	do	0.47	.00	.00
Oct. 14, 1965	do	do	do	do	.15	.21	June 18, 1968	do	do	do	0.30	.00	.01
Mar. 10, 1966	do	do	do	0.32	0	0	July 9, 1968	do	do	do	0.30	.05	.04
Nov. 8, 1966	do	Small	do	Ignition	(?)	.17	July 15, 1968	do	Large	do	0.30	.00	.10
							July 30, 1968	do	Small	do	0.25	.05	.19
							Sept. 3, 1968	do	Large	do	0.33	.12	.22
							Sept. 11, 1968	do	Small	do	0.26	.00	.00
							Dec. 13, 1968	do	Large	do	Interconnection	.00	.00
							Sept. 11, 1968	do	Small	do	0.51	.03	.03

DISTRICT D

July 13, 1965	Kentucky	Large	Drift	State—by letter			Dec. 10, 1968	Kentucky	Large	Drift	0.26	0.12	0.13
July 7, 1965	do	do	Slope	0.47	0.14	0.05	July 23, 1965	Illinois	do	Shaft	State—by letter		
July 4, 1966	do	Small	Shaft	0.53	.00	.00	Sept. 15, 1965	do	do	do	do		
July 6, 1966	do	do	do	0.39	.00	.03	Sept 14, 1966	do	Small	Slope	do		
June 13, 1967	do	Large	Slope	0.53	(?)	(?)	Do	do	do	Shaft	do		
June 21, 1967	do	do	do	0.36	(?)	(?)	Aug. 18, 1967	do	Large	Drift	0.45	.05	.07
Sept. 12, 1967	do	do	Drift	0.32	.10	.05	Oct. 22, 1968	do	do	Shaft	State—by letter		
Nov. 12, 1968	do	do	Shaft	0.29	.03	.03	Nov. 8, 1968	do	do	do	0.28	.08	.09
Do	do	do	Slope	0.41	.00	.16	June 1967	Oklahoma	do	Slope	State—by letter		
Nov. 14, 1968	do	do	Drift	0.30	.08	.09	October 967	do	do	Shaft	do		

DISTRICT E

Nov. 19, 1964	Utah	Large	Slope	State—By letter. ¹	0.07	0.00	1966	None			None		
Dec. 23, 1964	Colorado	do	Drift	0.63	.00	.01	Apr. 19, 1967	New Mexico	Large	Drift	0.34	0.00	0.01
Mar. 18, 1965	do	do	do	0.31	.00	.01	1968	None			None		

¹ Form 203(f) orders were not issued when mines were classed gassy by State department of mines.
² No prior inspection.

* No samples.
 † Data not available.
 ‡ None.

Mr. WILLIAMS of New Jersey. Most of these gas ignitions in nongassy mines have been caused by smoking, open flames, and small nonpermissible electric equipment.

The bill prohibits smoking and open flames, and requires that the small electric equipment be made ignition proof.

However, ignitions have also occurred from larger nonpermissible equipment, and large permissible equipment in nonpermissible condition. The bill also requires that this larger equipment be made ignition proof. The committee believed this requirement to be necessary for a very simple reason. Where there is methane, any spark—whether it be from a match, cigarette lighter, or small or large piece of electric equipment—can cause an ignition. In fact, as the committee has learned, five methane ignitions in nongassy mines have been caused by sparks emanating from large pieces of equipment.

While the bill was before the committee for consideration, a methane ignition was caused in a nongassy drift mine by a large piece of equipment which, the Bureau of Mines reports, was in nonpermissible condition at the time of the ignition. Five men were burned and hos-

pitalized. In that case, fortunately, none were killed. In the most serious of these 55 methane ignitions in nongassy mines since 1952, 11 miners were killed in Herrin, Ill. These miners were working in a mine which the law said was nongassy. Yet, a spark, emanating from a large shuttle car, found methane gas which was not supposed to be there, and exploded the methane gas. The Bureau of Mines reports that the shuttle car was in nonpermissible condition at the time of the ignition.

The mine involved had not been classified gassy by the State of Illinois. According to the report, "methane was never detected in the mine with a permissible flame safety lamp, except for the one time that the mine manager thought he might have found a very small amount in a roof cavity." Air samples collected during State inspections of the mine showed a maximum methane content of 0.08 percent, which, under current law, is well below the nongassy classification limit of 0.25 percent.

A shuttle car was being repaired. It had been manufactured originally to meet the Bureau's standards. During the course of repair, however, the control panel was open.

The Bureau of Mines investigators, in reconstructing the facts after the disaster, believe that during the course of repair, the repairman energized the power to the shuttle car for test purposes. Since the control panel was open, sparks were permitted to emanate. According to the final report of the investigation, "Federal inspectors are of the opinion that the disaster was caused by the ignition of methane in the air current. The gas was ignited by an arc or spark from the open control panel while repairs were being made on the shuttle car." Had the control panel been properly sealed when the machine started to operate, and under the Department of the Interior standards it must be, the ignition would not have occurred.

This may be called a borderline case. Since the particular equipment was manufactured in compliance with Bureau standards, it would not be prohibited by the bill. The fact is, however, that the machine was in a condition of noncompliance with standards at the time of the ignition, and this would be prohibited by the bill. It is also not arguable that 11 miners died in a mine when a spark ignited gas which the law said was not supposed to be there.

In addition to this major disaster caused by sparks emitting from a large piece of equipment in a so-called nongassy mine, the Department of Interior reports that three ignitions, in 1944—Ohio, three injuries; in 1945—Virginia, two injuries; and in 1952—Pennsylvania, four injuries—had been caused by cutting machines which did not meet the Department's standards. This same general type of equipment is still in use in the so-called nongassy mines today, but would be prohibited by the bill.

With this history, the committee could reach no other conclusion than to eliminate the artificial distinction recognized in the 1952 act.

Early in the committee's deliberations two arguments were presented against the judgment that safety required an elimination of the nongassy classification. One argument was economic, the other was practical. The committee was told that the cost of eliminating the distinction to the average small-mine operator would be approximately \$260,000. Estimates of the cost for all of the Nation's small-mine operators have ranged from \$100 million to \$300 million, and, as recently as a week ago, the New York Times reported estimates of between \$400 million and \$800 million.

In addition to these astronomical economic figures, the committee was informed that it might take as long as 10 years, and even more, for the necessary equipment to become available. As the committee learned, both the cost estimates and estimates of equipment availability were outrageously high because of basic erroneous assumptions. Both these estimates were based on an assumption that the small-mine operators, in order to comply, would have to purchase brandnew electrical equipment. In part, looking back at the early days of committee consideration, it may be understandable why this assumption was made.

Before I explain, however, the facts as they developed before the committee, I should note that the latest Department of Interior estimates are that it may cost the Nation's small-mine operators approximately \$10,000 per mine, and that equipment availability is a relatively small problem. Let me explain.

The Department of the Interior, many years ago, established a laboratory in Pittsburgh, Pa. One of the functions of this laboratory was to develop, experiment with, and test electrical equipment to insure that it was ignition proof.

Under schedule 2(G) of the Department's regulations—the regulations governing approval of electrical equipment—the Department's procedures require, under ordinary circumstances, that the equipment to be approved be sent to the Bureau's Pittsburgh laboratory for testing. In addition, the Bureau requires specifications, design drawings, descriptions, and application fees.

Ordinarily, under this procedure, a manufacturer of specialized mining equipment would submit a prototype to the Bureau of Mines. After rigorous testing, which may take up to 3 years, the

equipment may be approved. I ask unanimous consent that schedule 2(G) be printed in the RECORD at this point.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

[Schedule 2G, approved March 19, 1968]

ELECTRIC MOTOR-DRIVEN MINE EQUIPMENT AND ACCESSORIES

(From the U.S. Department of the Interior, Stewart L. Udall, Secretary, Bureau of Mines, Walter R. Hibbard, Jr., Director)

TITLE 30—MINERAL RESOURCES

CHAPTER I—BUREAU OF MINES, DEPARTMENT OF THE INTERIOR

[Bureau of Mines Schedule 2G]

Requirements for investigation, testing, approval, certification, and acceptance

On December 19, 1967, a notice was published in the Federal Register (32 F.R. 18098) of the proposed revision of Part 18 of Chapter I, Title 30, Code of Federal Regulations, and interested persons were afforded an opportunity to submit written comments, suggestions, or objections to the proposed revision.

Comments and suggestions have been received and considered and minor changes have been made in proposed §§ 18.13, 18.20, and 18.62, together with editorial changes not of a substantive nature.

Part 18 of Chapter I, Title 30, Code of Federal Regulations, is revised as follows and shall be effective upon publication in the Federal Register.

Part 34 of Chapter I, Title 30, Code of Federal Regulations, is revoked.

WALTER R. HIBBARD, Jr.,
Director, Bureau of Mines.

Part 18 of Chapter I, Title 30, Code of Federal Regulations, is revised to read as follows:

Subpart A—General provisions

- Sec. 18.1 Purpose.
- 18.2 Definitions.
- 18.3 Consultation.
- 18.4 Equipment for which approval will be issued.
- 18.5 Equipment for which certification will be issued.
- 18.6 Applications.
- 18.7 Fees.
- 18.8 Date for conducting investigation and tests.
- 18.9 Conduct of investigations and tests.
- 18.10 Notice of approval or disapproval.
- 18.11 Approval plate.
- 18.12 Letter of certification.
- 18.13 Certification plate.
- 18.14 Identification of tested non-certified explosion-proof enclosures.
- 18.15 Changes after approval or certification.
- 18.16 Withdrawal of approval, certification, or acceptance.

Subpart B—Construction and design requirements

- 18.20 Quality of material, workmanship, and design.
- 18.21 Machines equipped with powered dust collectors.
- 18.22 Boring-type machines equipped for auxiliary face ventilation.
- 18.23 Limitation of external surface temperatures.
- 18.24 Electrical clearances.
- 18.25 Combustible gases from insulating material.
- 18.26 Static electricity.
- 18.27 Gaskets.
- 18.28 Devices for pressure relief, ventilation, or drainage.
- 18.29 Access openings and covers, including unused lead-entrance holes.

- 18.30 Windows and lenses.
- 18.31 Enclosures—joints and fastenings.
- 18.32 Fastenings—additional requirements.
- 18.33 Finish of surface joints.
- 18.34 Motors.
- 18.35 Portable (trailing) cables and cords.
- 18.36 Cables between machine components.
- 18.37 Lead entrances.
- 18.38 Leads through common walls.
- 18.39 Hose conduit.
- 18.40 Cable clamps and grips.
- 18.41 Plug and receptacle-type connectors.
- 18.42 Explosion-proof distribution boxes.
- 18.43 Explosion-proof splice boxes.
- 18.44 Battery boxes and batteries (exceeding 12 volts).
- 18.45 Cable reels.
- 18.46 Headlights.
- 18.47 Voltage limitation.
- 18.48 Circuit-interrupting devices.
- 18.49 Connection boxes on machines.
- 18.50 Protection against external arcs and sparks.
- 18.51 Electrical protection of circuits and equipment.
- 18.52 Renewal of fuses.

Subpart C—Inspections and tests

- 18.60 Detailed inspection of components.
- 18.61 Final inspection of complete machine.
- 18.62 Tests to determine explosion-proof characteristics.
- 18.63 Tests of battery boxes.
- 18.64 Tests for flame resistance of cables.
- 18.65 Flame test of conveyor belting and hose.
- 18.66 Tests of windows and lenses.
- 18.67 Static-pressure tests.
- 18.68 Tests for intrinsic safety.
- 18.69 Adequacy tests.

Subpart D—Machines Assembled With Certified or Explosion-Proof Components, Field Modifications of Approved Machines, and Permits To Use Experimental Equipment

- 18.80 Approval of machines assembled with certified or explosion-proof components.
- 18.81 Field modification of approved (permissible) equipment; application for approval of modification; approval of plans for modification before modification.
- 18.82 Permit to use experimental electric face equipment in a gassy mine or tunnel.

AUTHORITY: The provisions of this Part 18 issued under sec. 5, 36 Stat. 370 (30 U.S.C. 7) as amended, and sec. 212(a), 66 Stat. 709 (30 U.S.C. 482(a)). Interpret or apply secs. 2, 3, 36 Stat. 370 (30 U.S.C. 3, 5) as amended, and secs. 201, 209, 66 Stat. 692, 703 (30 U.S.C. 471, 479).

SUBPART A—GENERAL PROVISIONS

§ 18.1 Purpose.

The regulations in this part set forth the requirements to obtain Bureau of Mines: (a) Approval of electrically operated machines and accessories intended for use in gassy mines or tunnels, (b) certification of components intended for use on or with approved machines, (c) permission to modify the design of an approved machine or certified component, (d) acceptance of flame-resistant cables, hoses, and conveyor belts, (e) sanction for use of experimental machines and accessories in gassy mines or tunnels; also, procedures for applying for such approval, certification, acceptance for listing; and fees.

§ 18.2 Definitions.

As used in this part—
"Acceptance" means written notification by the Bureau that a cable, hose, or conveyor belt has met the applicable requirements of this part and will be listed by the Bureau as acceptable flame-resistant auxiliary equipment.

"Acceptance marking" means an identifying marking indicating that the cable, hose,

or conveyor belt has been accepted by the Bureau for listing as flame resistant.

"Accessory" means associated electrical equipment, such as a distribution or splice box, that is not an integral part of an approved (permissible) machine.

"Afterburning" means the combustion of a flammable mixture that is drawn into a machine compartment after an internal explosion in the compartment.

"Applicant" means an individual, partnership, company, corporation, organization, or association that designs, manufactures, assembles, or controls the assembly of an electrical machine or accessory and seeks approval, certification, or permit, or Bureau acceptance for listing of flame-resistant cable, hose, or conveyor belt.

"Approval" means a formal document issued by the Bureau which states that a completely assembled electrical machine or accessory has met the applicable requirements of this part and which authorizes the attachment of an approval plate so indicating.

"Approval plate" means a metal plate, the design of which meets the Bureau's requirements, for attachment to an approved machine or accessory, identifying it as permissible for use in gassy mines or tunnels.

"Branch circuit" means an electrical circuit connected to the main circuit, the conductors of which are of smaller size than the main circuit.

"Bureau" means the U.S. Bureau of Mines.

"Certification" means a formal written notification, issued by the Bureau, which states that an electrical component complies with the applicable requirements of this part and, therefore, is suitable for incorporation in approved (permissible) equipment.

"Certification label" means a plate, label, or marking, the design of which meets the Bureau's requirements, for attachment to a certified component identifying the component as having met the Bureau's requirements for incorporation in a machine to be submitted for approval.

"Component" means an integral part of an electrical machine or accessory that is essential to the functioning of the machine or accessory.

"Connection box" (also known as conduit or terminal box) means an enclosure mounted on an electrical machine or accessory to facilitate wiring, without the use of external splices. (Such boxes may have a joint common with an explosion-proof enclosure provided the adjoining surfaces conform to the requirements of Subpart B of this part.)

"Cylindrical joint" means a joint comprised of two contiguous, concentric, cylindrical surfaces.

"Distribution box" means an enclosure through which one or more portable cables may be connected to a source of electrical energy, and which contains a short-circuit protective device for each outgoing cable.

"Experimental equipment" means any electrical machine or accessory that an applicant or the Bureau may desire to operate experimentally for a limited time in a gassy mine or tunnel. (For example, this might include a machine constructed at a mine, an imported machine, or a machine or device designed and developed by the Bureau.)

"Explosion-proof enclosure" means an enclosure that complies with the applicable design requirements in Subpart B of this part and is so constructed that it will withstand internal explosions of methane-air mixtures: (1) Without damage to or excessive distortion of its walls or cover(s), and (2) without ignition of surrounding methane-air mixtures or discharge of flame from inside to outside the enclosure.

"Fire-resistant" as applied to conveyor belts means belting that will pass the flame tests hereafter specified.

"Flame-arresting path" means two or more adjoining or adjacent surfaces between which the escape of flame is prevented.

"Flame resistant" as applied to cable, hose, and insulating materials means material that will burn when held in a flame but will cease burning when the flame is removed.

"Flammable mixture" means a mixture of methane or natural gas and air that when ignited will propagate flame. Natural gas containing a high percentage of methane is a satisfactory substitute for pure methane in most tests.

"Gassy mine" means a coal mine classed as "gassy" by the Bureau or by the State in which the mine is situated.

"Incendive arc or spark" means an arc or spark releasing enough electrical or thermal energy to ignite a flammable mixture of the most easily ignitable composition.

"Intrinsically safe" means incapable of releasing enough electrical or thermal energy under normal or abnormal conditions to cause ignition of a flammable mixture of methane or natural gas and air of the most easily ignitable composition.

"Mobile equipment" means equipment that is self-propelled.

"Normal operation" means the regular performance of those functions for which a machine or accessory was designed.

"Permissible equipment" means a completely assembled electrical machine or accessory for which a formal approval has been issued, as authorized by the Director of the Bureau of Mines under section 212(a) of the Federal Coal Mine Safety Act, as amended (66 Stat. 709; 30 U.S.C., sec. 482(a)).

"Permit" means a formal document, signed by the Director of the Bureau of Mines, authorizing the operation of specific experimental equipment in a gassy mine or tunnel under prescribed conditions.

"Plane joint" means two adjoining surfaces in parallel planes.

"Portable cable", or "trailing cable" means a flame-resistant, flexible cable or cord through which electrical energy is transmitted to a permissible machine or accessory. (A portable cable is that portion of the power-supply system between the last short-circuit protective device, acceptable to the Bureau, in the system and the machine or accessory to which it transmits electrical energy.)

"Portable equipment" means equipment that may be moved frequently and is constructed or mounted to facilitate such movement.

"Potted component" means a component that is entirely embedded in a solidified insulating material within an enclosure.

"Pressure piling" means the development of abnormal pressure as a result of accelerated rate of burning of a gas-air mixture. (Frequently caused by restricted configurations within enclosures.)

"Qualified representative" means a person authorized by the Bureau to determine whether the applicable requirements of this part have been complied with in the original manufacture, rebuilding, or repairing of equipment for which approval, certification, or a permit is sought.

"Splice box" means a portable enclosure in which electrical conductors may be joined.

"Step (rabbet) joint" means a joint comprised of two adjoining surfaces with a change(s) in direction between its inner and outer edges. (A step joint may be composed of a cylindrical portion and a plane portion or of two or more plane portions.)

"Threaded joint" means a joint consisting of a male- and a female-threaded member, both of which are of the same type and gage.

§ 18.3 Consultation.

By appointment, applicants or their representatives may visit the Bureau's Health

and Safety Research and Testing Center, 4800 Forbes Avenue, Pittsburgh, Pa. 15213, to discuss a proposed design to be submitted for approval, certification, or acceptance for listing. No charge is made for such consultation and no written report thereof will be made to the applicant.

§ 18.4 Equipment for which approval will be issued.

An approval will be issued only for a complete electrical machine or accessory. Assemblies that include one or more nonexplosion-proof components will not be considered for approval unless such component(s) contains intrinsically safe circuits or is constructed in accordance with paragraph (b), § 18.31.

§ 18.5 Equipment for which certification will be issued.

Certification will be issued for a component or subassembly suitable to incorporate in an approved machine. Certification may be issued for such components as explosion-proof enclosures, battery trays, and connectors.

§ 18.6 Applications.

(a) Investigation leading to approval, certification, extension thereof, or acceptance of cables, hose, or conveyor belt, will be undertaken by the Bureau only pursuant to a written application, in duplicate, accompanied by a clerk, bank draft, or money order, payable to the U.S. Bureau of Mines, to cover the fees. The application shall be accompanied by all necessary drawings, specifications, descriptions, and related materials, as hereinafter provided. The application, all related matters, and all correspondence concerning it shall be addressed to the Bureau of Mines, 4800 Forbes Avenue, Pittsburgh, Pa. 15213, Attention: Approval and Testing.

(b) Applications for acceptance of cable and cord as flame resistant shall include the following information: Number and gage of conductors, type of material and identifying compound numbers for conductor insulation, fillers, and jackets. The applicant shall provide other description of specifications as may be subsequently required.

(c) Applications for acceptance of a conveyor belt as fire resistance shall include the following information: Trade name of the conveyor belt, thickness of covers, friction and skim coats, number of plies, type and weight of ply material, and designation of breaker strip or floated ply. The applicant shall provide other description or specifications as may be subsequently required.

(d) Applications for acceptance of hose as flame resistant shall include the following information: Trade name of hose, identification of materials used, including compound numbers, thickness of cover, thickness of tube, and number and weight of plies. The applicant shall provide description or specifications as may be subsequently required.

(e) Drawings, drawing lists, specifications, wiring diagram, and descriptions shall be adequate in number and detail to identify fully the complete assembly, component parts, and subassemblies. Drawings shall be titled, numbered, dated and shall show the latest revision. Each drawing shall include a warning statement that changes in design must be authorized by the Bureau before they are applied to approved equipment. When intrinsically safe circuits are incorporated in a machine or accessory, the wiring diagram shall include a warning statement that any change(s) in the intrinsically safe circuitry or components may result in an unsafe condition. The specifications shall include an assembly drawing(s) (see Figure 1 in Appendix II) showing the overall dimensions of the machine and the identity of each component part which may be listed thereon or separately, as in a bill of material (see Figure 2 in Appendix II). The Bureau may accept

photographs (minimum size 8" x 10½") in lieu of assembly drawing(s). Purchased parts shall be identified by the manufacturer's name, catalog number(s), and rating(s). In the case of standard hardware and miscellaneous parts, such as insulating pieces, size and kind of material shall be specified. All drawings of component parts submitted to the Bureau shall be identical to those used in the manufacture of the parts. Dimensions of parts designed to prevent the passage of flame shall specify allowable tolerances. A notation "Do Not Drill Through" or equivalent should appear on drawings with the specifications for all "blind" holes.

(f) The Bureau reserves the right to require the applicant to furnish supplementary drawings showing sections through complex flame-arresting paths, such as labyrinths used in conjunction with ball or roller bearings, and also drawings containing dimensions not indicated on other drawings submitted to the Bureau.

(g) The applicant may ship his equipment to the Bureau for investigation at the time of filing his application and payment of the required fees. Shipping charges shall be prepaid by the applicant.

(h) For a complete investigation leading to approval or certification the applicant shall furnish the Bureau with the components necessary for inspection and testing. Expendable components shall be supplied by the applicant to permit continuous operation of the equipment while being tested. If special tools are necessary to assemble or disassemble any component for inspection or test, the applicant shall furnish them with the equipment to be tested.

(i) For investigation of a cable, hose, or conveyor belt, the applicant shall furnish samples as follows:

Cable—a sample having a minimum length of 12 feet;

Hose—a sample having a minimum length of 2 feet;

Conveyor belt—a sample of each type 8 inches long cut across the entire width of the belt.

(j) The applicant shall submit a sample caution statement (see figure 3 in appendix II) specifying the conditions for maintaining permissibility of the equipment.

(k) The applicant shall submit a factory-inspection form (see figure 4 in appendix II) used to maintain quality control at the place of manufacture or assembly to insure that component parts are made and assembled in strict accordance with the drawings and specifications covering a design submitted to the Bureau for approval or certification.

(l) The Bureau will accept an application for an approval, a letter of certification, or an acceptance for listing of a product that is manufactured in a country other than the United States provided: (1) All correspondence, specifications, lettering on drawings (metric-system dimensions acceptable), instructions and related information are in English; and (2) all other requirements of this part are met the same as for a domestic applicant.

§ 18.7 Fees.

(a) Detailed inspection of each explosion-proof enclosure.....	\$105
NOTE: When 20 or less explosion tests are required, the inspection fee shall be \$60.	
(b) Explosion tests of each explosion-proof enclosure.....	70
NOTE: When 20 or less explosion tests are required, the fee shall be \$35.	
(c) Each field inspection of a completely assembled machine or accessory.....	80
(d) Adequacy tests of potting material.....	50

(e) Test to determine adequacy of ventilation (battery enclosure).....	\$50
(f) Intrinsic-safety investigation and test.....	105
(g) High-potential test.....	50
(h) Surface temperature test.....	50
(i) 1. Flame test of cable.....	50
2. Development flame tests shall be charged at the rate of \$10 per specimen. The minimum charge is \$25.	
(j) 1. Flame test of conveyor belt or hose conduit.....	25
2. Development flame tests shall be charged at the rate of \$5 per specimen. The minimum charge is \$15.	
(k) Impact test each window or lens.....	25
(l) Thermal shock test each window or lens.....	25
(m) No charge will be made for inspection or tests made solely for the Bureau's information.	
(n) Examining and recording drawings and specifications preparatory to issuing:	
1. Approval.....	110
2. Certification.....	55
3. Extension of approval.....	70
4. Extension of certification.....	40

NOTE: When investigation, inspection, or testing is required to be performed at locations other than the Bureau's premises, the applicant shall reimburse the Bureau for traveling, subsistence and incidental expenses of its representative(s) in accordance with Standardized Government Travel Regulations. Such reimbursement shall be in addition to the fee charged for investigation, inspection, or testing.

§ 18.8 Date for conducting investigation and tests.

The date of receipt of an application will determine the order of precedence for investigation and testing. If an electrical machine component or accessory fails to meet any of the requirements, it shall lose its order of precedence. If an application is submitted to resume investigation and testing after correction of the cause of failure, it will be treated as a new application and the order of precedence for investigation and testing will be so determined.

§ 18.9 Conduct of investigations and tests.

(a) Prior to the issuance of an approval, certification, or acceptance of a cable, hose, or conveyor belt, only Bureau personnel, representative(s) of the applicant, and such other person(s) as may be mutually agreed upon may observe any part of the investigation or tests. The Bureau will hold as confidential and will not disclose principles or patentable features; nor will it disclose to persons other than the applicant the results of tests, chemical analyses of materials, or any details of the applicant's drawings, specifications, instructions, and related material.

(b) Unless notified to the contrary by the Bureau, the applicant shall provide assistance in disassembling parts for inspection, preparing parts for testing, and preparing equipment for return shipment. Explosion-proof enclosures shall be drilled and tapped for pipe connections in accordance with instructions supplied by the Bureau.

(c) The Bureau reserves the right to inspect a complete machine, component part, or accessory at a place other than the Bureau's premises, such as the assembly plant or other location acceptable to the Bureau, at the applicant's expense.

(d) Applicants shall be responsible for their representatives present during tests and for observers admitted at their request and shall save the Government harmless in the event of damage to applicant's property or injury to applicant's representatives or to observers admitted at their request.

§ 18.10 Notice of approval or disapproval.

(a) Upon completing investigation of a complete assembly of an electrical machine or accessory, the Bureau will issue to the applicant either a written notice of approval or a written notice of disapproval, as the case may require. No informal notification of approval will be issued. If a notice of disapproval is issued, it will be accompanied by details of the defects, with recommendations for possible correction. The Bureau will not disclose, except to the applicant, any information upon which a notice of disapproval has been issued.

(b) A formal notice of approval will be accompanied by a list of drawings, specifications, and related material, covering the details of design and construction of the equipment upon which the approval is based. Applicants shall keep exact duplicates of the drawings, specifications, and descriptions that relate to equipment for which an approval has been issued, and the drawings and specifications shall be adhered to exactly in production of the approved equipment.

(c) An applicant shall not advertise or otherwise represent his equipment as approved (permissible) until he has received the Bureau's formal notice of approval.

§ 18.11 Approval plate.

(a) (1) The notice of approval will be accompanied by a photograph of an approval plate, bearing the seal of the Bureau of Mines, the name of the complete assembly, the name of the applicant, and spaces for the approval number, serial number, and the type or model of machine.

(2) An extension of approval will not affect the original approval number except that the extension number shall be added to the original approval number on the approval plate. (Example: Original approval No 2G-3000; seventh extension No 2G-3000-7.)

(b) The applicant shall reproduce the design on a separate plate, which shall be attached in a suitable place, on each complete assembly to which it relates. The size, type, location, and method of attaching an approval plate are subject to the Bureau's concurrence. The method for affixing the approval plate shall not impair any explosion-proof feature of the equipment.

(c) The approval plate identifies as permissible the machine or accessory to which it is attached, and use of the approval plate obligates the applicant to whom the approval was issued to maintain in his plant the quality of each complete assembly and guarantees that the equipment is manufactured and assembled according to the drawings, specifications, and descriptions upon which the approval and subsequent extension(s) of approval were based.

(d) A completely assembled approved machine with an integral dust collector shall bear an approval plate indicating that the requirements of Part 33 of this chapter (Bureau of Mines Schedule 25B), have been complied with. Approval numbers will be assigned under each part of such joint approvals.

§ 18.12 Letter of certification.

(a) A letter of certification may be issued by the Bureau for a component intended for incorporation in a complete machine or accessory for which an approval may be subsequently issued. A letter of certification will be issued to an applicant when a component has met all the applicable requirements of this part. Included in the letter of certification will be an assigned Bureau of Mines certification number that will identify the certified component.

(b) A letter of certification will be accompanied by a list of drawings, specifications, and related material covering the details of design and construction of a component upon which the letter of certification is

based. Applicants shall keep exact duplicates of the drawings, specifications, and descriptions that relate to the component for which a letter of certification has been issued; and the drawings and specifications shall be adhered to exactly in production of the certified component.

(c) A component shall not be represented as certified until the applicant has received the Bureau's letter of certification for the component. Certified components are not to be represented as "approved" or "permissible" because such terms apply only to completely assembled machines or accessories.

§ 18.13 Certification plate.

Each certified component shall be identified by a certification plate attached to the component in a manner acceptable to the Bureau. The method of attachment shall not impair any explosion-proof characteristics of the component. The plate shall be of serviceable material, acceptable to the Bureau, and shall contain the following:

Certified as complying with the applicable requirements of Bureau of Mines Schedule -----

Certification No. -----

The blank spaces shall be filled with appropriate designations. Inclusion of the information on a company name plate will be permitted provided the plate is made of material acceptable to the Bureau.

§ 18.14 Identification of tested noncertified explosion-proof enclosures.

An enclosure that meets all applicable requirements of this part, but has not been certified by the Bureau, shall be identified by a permanent marking on it in a conspicuous location. The design of such marking shall consist of capital letters SBM not less than ¼ inch in height, enclosed in a circle not less than 1 inch in diameter.

§ 18.15 Changes after approval or certification.

If an applicant desires to change any feature of approved equipment or a certified component, he shall first obtain the Bureau's concurrence pursuant to the following procedure:

(a) Application shall be made as for an original approval or letter of certification requesting that the existing approval or certification be extended to cover the proposed change(s) and shall be accompanied by drawings, specifications, and related information, showing the change(s) in detail.

(b) The application will be examined by the Bureau to determine whether inspection or testing will be required. Testing will be required if there is a possibility that the change(s) may adversely affect safety.

(c) If the change(s) meets the requirements of this part, a formal extension of approval or certification will be issued, accompanied by a list of new or revised drawings, specifications, and related information to be added to those already on file for the original approval or certification.

(d) Revisions in drawings or specifications that do not involve actual change in the explosion-proof features of equipment may be handled informally, without fee.

§ 18.16 Withdrawal of approval, certification, or acceptance.

The Bureau reserves the right to rescind, for cause, any approval, certification, acceptance, or extension thereof, issued under this part.

SUBPART B—CONSTRUCTION AND DESIGN REQUIREMENTS

§ 18.20 Quality of material, workmanship, and design.

(a) Electrically operated equipment intended for use in coal mines shall be rugged

in construction and shall be designed to facilitate inspection and maintenance.

(b) The Bureau will test only electrical equipment that in the opinion of its qualified representatives is constructed of suitable materials, is of good quality workmanship, based on sound engineering principles, and is safe for its intended use. Since all possible designs, circuits, arrangements, or combinations of components and materials cannot be foreseen, the Bureau reserves the right to modify design, construction, and test requirements to obtain the same degree of protection as provided by the tests described in Subpart C of this part.

(c) Moving parts, such as rotating saws, gears, and chain drives, shall be guarded to prevent personal injury.

(d) Flange joints and lead entrances shall be accessible for field inspection, where practicable.

(e) An audible warning device shall be provided on each mobile machine that travels at a speed greater than 2.5 miles per hour.

(f) Brakes shall be provided for each wheel-mounted machine, unless design of the driving mechanism will preclude accidental movement of the machine when parked.

(g) A headlight and red light-reflecting material shall be provided on both front and rear of each mobile transportation unit that travels at a speed greater than 2.5 miles per hour. Red light-reflecting material should be provided on each end of other mobile machines.

§ 18.21 Machines equipped with powered dust collectors.

Powered dust collectors on machines submitted for approval shall meet the applicable requirements of Part 33 of this chapter (Bureau of Mines Schedule 25B), and shall bear the approval number assigned by the Bureau.

§ 18.22 Boring-type machines equipped for auxiliary face ventilations.

Each boring-type continuous-mining machine that is submitted for approval shall be constructed with an unobstructed continuous space(s) of not less than 200 square inches total cross-sectional area on or within the machine to which flexible tubing may be attached to facilitate auxiliary face ventilation.

§ 18.23 Limitation of external surface temperatures.

The temperature of the external surfaces of mechanical or electrical components shall not exceed 150° C. (302° F.) under normal operating conditions.

§ 18.24 Electrical clearances.

The clearance between live parts and casings shall be sufficient to minimize the possibility of arcs striking the casings. Where space is limited, the casing shall be lined with adequate insulation.

§ 18.25 Combustible gases from insulating material.

(a) Insulating materials that give off flammable or explosive gases when decomposed electrically shall not be used within enclosures where the materials are subjected to destructive electrical action.

(b) Parts coated or impregnated with insulating materials shall be heat-treated to remove any combustible solvent(s) before assembly in an explosion-proof enclosure. Air-drying insulating materials are excepted.

§ 18.26 Static electricity.

Nonmetallic rotating parts, such as belts and fans, shall be provided with a means to prevent an accumulation of static electricity.

§ 18.27 Gaskets.

A gasket(s) shall not be used between any two surfaces forming a flame-arresting path except as follows:

(a) A gasket of lead, elastomer, or equivalent will be acceptable provided the gasket does not interfere with an acceptable metal-to-metal joint.

(b) A lead gasket(s) or equivalent will be acceptable between glass and a hard metal to form all or a part of a flame-arresting path. § 18.28 Devices for pressure relief, ventilation, or drainage.

(a) Devices for installation on explosion-proof enclosures to relieve pressure, ventilate, or drain will be acceptable provided the length of the flame-arresting path and the clearances or size of holes in perforated metal will prevent discharge of flame in explosion tests.

(b) Devices for pressure relief, ventilation, or drainage shall be constructed of materials that resist corrosion and distortion, and be so designed that they can be cleaned readily. Provision shall be made for secure attachment of such devices.

(c) Devices for pressure relief, ventilation, or drainage will be acceptable for application only on enclosures with which they are explosion tested.

§ 18.29 Access openings and covers, including unused lead-entrance holes.

(a) Access openings in explosion-proof enclosures will be permitted only where necessary for maintenance of internal parts such as motor brushes and fuses.

(b) Covers for access openings shall meet the same requirements as any other part of an enclosure except that threaded covers shall be secured against loosening, preferably with screws having heads requiring a special tool. (See figure 1 in Appendix II.)

(c) Holes in enclosures that are provided for lead entrances but which are not in use shall be closed with metal plugs secured by spot welding, brazing, or equivalent. (See Figure 10 in Appendix II.)

§ 18.30 Windows and lenses.

(a) The Bureau may waive testing of materials for windows or lenses except headlight lenses. When tested, material for windows or lenses shall meet the test requirements prescribed in § 18.66 and shall be sealed in place or provided with flange joints in accordance with § 18.31.

(b) Windows or lenses shall be protected from mechanical damage by structural design, location, or guarding. Windows or lenses, other than headlight lenses, having an exposed area greater than 8 square inches, shall be provided with guarding or equivalent.

§ 18.31 Enclosures—joints and fastenings.

(a) Explosion-proof enclosures:

(1) Cast or welded enclosures shall be designed to withstand a minimum internal pressure of 150 pounds per square inch (gage). Castings shall be free from blow-holes.

(2) Welded joints forming an enclosure shall have continuous gas-tight welds. All welds shall be made in accordance with American Welding Society standards.

(3) External rotating parts shall not be constructed of aluminum alloys containing more than 0.5 percent magnesium.

(4) The Bureau reserves the right to require the applicant to conduct static-pressure tests on each enclosure when the Bureau determines that the particular design will not permit complete visual inspection or when the joint(s) forming an enclosure is welded on one side only (see § 18.67).

(5) Threaded covers shall be designed with Class 1 (coarse, loose fitting) threads. The flame-arresting path of threaded joints shall conform to the requirements of subparagraph (6) of this paragraph.

(6) Enclosures shall meet the following requirements based on the internal volumes of the empty enclosure:

(b) Enclosures for potted components:

Enclosures shall be rugged and constructed with materials having 75 percent, or greater, of the thickness and flange width specified in paragraph (a) of this section. These en-

losures shall be provided with means for attaching hose conduit, unless energy carried by the cable is intrinsically safe.

(c) No assembly will be approved that re-

quires the opening of an explosion-proof enclosure to operate a switch, rheostat, or other device during normal operation of a machine.

	Volume of empty enclosure—		
	Less than 45 cu. in.	45 to 124 cu. in., inclusive	More than 124 cu. in.
Minimum thickness of material for walls	$\frac{3}{8}$ in.	$\frac{3}{16}$ in.	$\frac{3}{8}$ in.
Minimum thickness of material for flanges	$\frac{3}{8}$ in. ¹	$\frac{3}{8}$ in. ²	$\frac{3}{8}$ in. ²
Minimum thickness of material for cover	$\frac{3}{8}$ in. ¹	$\frac{3}{8}$ in. ²	$\frac{3}{8}$ in. ²
Minimum width of joint—all in one plane	$\frac{3}{8}$ in.	$\frac{3}{8}$ in.	1 in.
Maximum clearance—Joint all in one plane	0.002 in.	0.003 in.	0.004 in.
Minimum width of joint, portions of which are in different planes—cylinders or equivalent	$\frac{3}{8}$ in. ³	$\frac{3}{8}$ in. ³	$\frac{3}{8}$ in. ³
Maximum clearances—Joint in two or more planes, cylinders or equivalent:			
(a) Portion perpendicular to plane	0.008 in. ⁴	0.008 in. ⁴	0.008 in. ⁴
(b) Plane portion	0.006 in.	0.006 in.	0.006 in.
Maximum bolt ⁵ spacing—Joints all in one plane	6 in., with minimum of 4 bolts.	6 in., with minimum of 4 bolts.	6 in.

	Volume of empty enclosure—		
	Less than 45 cu. in.	45 to 124 cu. in., inclusive	More than 124 cu. in.
Maximum bolt spacing—Joints, portions of which are in different planes.	(⁶)	(⁶)	(⁶)
Minimum diameter of bolt (without regard to type of joint)	$\frac{1}{4}$ in.	$\frac{1}{4}$ in.	$\frac{3}{8}$ in.
Minimum thread engagement ⁷	$\frac{1}{2}$ in.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.
Maximum diametrical clearance between bolt body and unthreaded holes through which it passes. ⁸	$\frac{3}{64}$ in.	$\frac{3}{64}$ in.	$\frac{3}{64}$ in.
Minimum distance from interior of enclosure to the edge of a bolt hole:			
Joint—minimum width 1 in.			$\frac{7}{16}$ in. ⁹
Joint—less than 1 in. wide	$\frac{1}{8}$ in.	$\frac{3}{16}$ in.	

¹ $\frac{1}{32}$ inch less is allowable for machining rolled plate.
² $\frac{1}{16}$ inch less is allowable for machining rolled plate.
³ If only 2 planes are involved, neither portion of a joint shall be less than $\frac{1}{8}$ -inch wide, unless the wider portion conforms to the same requirements as those for a joint that is all in 1 plane. If more than 2 planes are involved (as in labyrinths or tongue-and-groove joints) the combined lengths of those portions having prescribed clearances will be considered.
⁴ The allowable diametrical clearance is 0.008 in. when the portion perpendicular to the plane portion is $\frac{1}{2}$ in. or greater in length. If the perpendicular portion is more than $\frac{1}{8}$ in. but less than $\frac{1}{2}$ in. wide, the diametrical clearance shall not exceed 0.006 in.
⁵ Where the term "bolt" is used, it refers to a machine bolt or a cap screw, and for either of these

studs may be substituted provided the studs bottom in blind holes, are completely welded in place, or the bottom of the hole is closed with a secured plug. Bolts shall be provided at all corners.
⁶ Adequacy of bolt spacing will be judged on basis of size and configuration of the enclosure, strength of materials, and explosion test results.
⁷ In general, minimum thread engagement shall be equal to or greater than the diameter of the bolt specified.
⁸ Threaded holes for fastening bolts shall be machined to remove burrs or projections that affect planarity of a surface forming a flame-arresting path.
⁹ Less than $\frac{3}{16}$ in. ($\frac{3}{16}$ -in. minimum) will be acceptable provided the diametrical clearance for fastening bolts does not exceed $\frac{1}{32}$ in.

CYLINDRICAL JOINTS

	Volume of empty enclosure—		
	Less than 45 cu. in.	45 to 124 cu. in., inclusive	More than 124 cu. in.
Shafts centered by ball or roller bearings:			
Minimum length of flame-arresting path	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	1 in.
Maximum radial clearance	0.010 in.	0.0125 in.	0.015 in.
Shafts through Journal bearings: ¹			
Minimum length of flame-arresting path	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	1 in.
Maximum radial clearance	0.003 in.	0.004 in.	0.005 in.

	Volume of empty enclosure—		
	Less than 45 cu. in.	45 to 124 cu. in., inclusive	More than 124 cu. in.
Other than shafts:			
Minimum length of flame-arresting path	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	1 in.
Maximum radial clearance	0.0015 in.	0.002 in.	0.003 in.

¹ Shafts or operating rods through journal bearings shall be not less than $\frac{1}{4}$ inch in diameter. The length of fit shall not be reduced when a pushbutton is depressed. Operating rods shall have a shoulder or head on the portion inside the enclosure. Essential parts riveted or bolted to the

inside portion will be acceptable in lieu of a head or shoulder, but cotter pins and similar devices will not be acceptable.

§ 18.32 Fastening—additional requirements.

(a) Bolts, screws, or studs shall be used for fastening adjoining parts to prevent the escape of flame from an enclosure. Hinge pins or clamps will be acceptable for this purpose provided the Bureau determines them to be equally effective.

(b) Lockwashers shall be provided for all bolts, screws, and studs that secure parts of explosion-proof enclosures. Special fastenings designed to prevent loosening will be acceptable in lieu of lockwashers, provided the Bureau determines them to be equally effective.

(c) Fastenings shall be as uniform in size as practicable to preclude improper assembly.

(d) Holes for fastenings shall not penetrate to the interior of an explosion-proof enclosure, except as provided in paragraph (a) (9) of § 18.34, and shall be threaded to insure that a specified bolt or screw will not bottom even if its lockwasher is omitted.

(e) A minimum of $\frac{1}{8}$ inch of stock shall be left at the center of the bottom of each hole drilled for fastenings.

(f) Fastenings used for joints on explosion-proof enclosures shall not be used for attaching nonessential parts or for making electrical connections.

(g) The acceptable sizes for and spacings of fastenings shall be determined by the size of the enclosure, as indicated in § 18.31.

(h) The Bureau reserves the right to conduct explosion tests with standard bolts, nuts, cap screws, or studs substituted for any special high-tensile strength fastening(s) specified by the applicant.

§ 18.33 Finish of surface joints.

Flat surfaces between bolt holes that form any part of a flame-arresting path shall be

plane to within a maximum deviation of one-half the maximum clearance specified in § 18.31(a) (6): All metal surfaces shall be finished in manufacture to not more than 250 microinches. A thin film of nonhardening preparation to inhibit rusting may be applied to finish steel surfaces.

§ 18.34 Motors.

(a) General. (1) Motors shall have explosion-proof enclosures.

(2) Motors submitted to the Bureau for test shall be equipped with unshielded bearings regardless of whether that type of bearing is specified.

(3) The Bureau reserves the right to test motors with the maximum clearance specified between the shaft and the mating part which forms the required flame-arresting path. Also reserved is the right to remachine these parts, at the applicant's expense, to specified dimensions to provide the maximum clearance.

NOTE: For example, a shaft with a diameter greater than 2 inches at the flame-arresting portion might require such machining.

(4) Ball and roller bearings and oil seals will not be acceptable as flame-arresting paths; therefore, a separate path shall be provided between the shaft and another part, preferably in by the bearing. The length and clearances of such flame-arresting path shall conform to the requirements of § 18.31.

(5) Labyrinths or other arrangements that provide change(s) in direction of escaping gases will be acceptable but the use of small detachable pieces shall not be permitted unless structurally unavoidable. The lengths of flame-arresting path(s) and clearance(s) shall conform to the requirements of § 18.31.

(6) The widths of oil grooves and grooves

for holding oil seals will be deducted in measuring the widths of flame-arresting paths.

NOTE: Oil seals will be removed from motors prior to explosion tests and therefore may be omitted from motors submitted for investigation.

(7) Openings for filling and draining bearing lubricants shall be so located as to prevent escape of flame through them.

(8) An outer bearing cap will not be considered as forming any part of a flame-arresting path unless the cap is used as a bearing cartridge.

NOTE: The outer bearing cap will be omitted during explosion tests unless it houses the bearing.

(9) If unavoidable, holes may be made through motor casings for bolts, studs, or screws to hold essential parts such as pole pieces, brush rigging, and bearing cartridges. Such parts shall be attached to the casing by at least two fastenings. The threaded holes in these parts shall be blind, unless the fastenings are inserted from the inside, in which case the fastenings shall not be accessible with the armature of the motor in place.

(b) Direct-current motors. For direct-current motors with narrow interpoles, the distance from the edge of the pole piece to any bolt hole in the frame shall be not less than $\frac{1}{8}$ inch. If the distance is $\frac{1}{8}$ to $\frac{1}{4}$ inch, the diametrical clearance for the pole bolt shall not exceed $\frac{1}{64}$ inch for not less than $\frac{1}{2}$ inch through the frame. Furthermore, the pole piece shall have the same radius as the inner surface of the frame. Pole pieces may be shimmed as necessary.

(c) Alternating-current motors. Stator laminations that form a part of an explosion-

proof enclosure will be acceptable provided: (1) The laminations and their end rings are fastened together under pressure; (2) the joint between the end rings and the laminations is not less than 1/4 inch, but preferably as close to 1 inch as possible; and (3) it shall be impossible to insert a 0.0015-inch thickness gage to a depth exceeding 1/8 inch between adjacent laminations or between end rings and laminations.

(d) *Small motors (alternating- and direct-current)*. Motors having internal free volume not exceeding 350 cubic inches and joints not exceeding 32 inches in outer circumference will be acceptable for investigation if provided with rabbet joints between the stator frame and the end bracket having the following dimensions:

DIMENSIONS OF RABBIT JOINTS—INCHES

Minimum total width	Minimum width of clamped radial portion	Maximum clearance of radial portion	Maximum diametrical clearance at axial portion
3/8	3/8	0.0015	0.003
1/2	3/8	.002	.003
5/8	3/8	.002	.004

§ 18.35 Portable (trailing) cables and cords.

(a) Portable cables and cords used to conduct electrical energy to face equipment shall conform to the following:

(1) Have each conductor of a current-carrying capacity consistent with Insulated Power Cable Engineers Association (IPCEA) standards. (See Tables 1 and 2 in Appendix I.)

(2) Have current-carrying conductors not smaller than No. 14 (AWG). Cords with sizes 14 to 10 (AWG) conductors shall be constructed with heavy jackets, the diameters of which are given in Table 6 in Appendix I.

(3) Have flame-resistant properties. (See § 18.64.)

(4) Have short-circuit protection at the outby (circuit-connecting) end of ungrounded conductors. (See Table 8 in Appendix I.) The fuse rating or trip setting shall be included in the assembler's specifications.

(5) Ordinarily the length of a portable (trailing) cable shall not exceed 500 feet. Where the method of mining requires the length of a portable (trailing) cable to be more than 500 feet, such length of cable shall be permitted only under the following prescribed conditions:

(i) The lengths of portable (trailing) cables shall not exceed those specified in Table 9, Appendix I, title "Specifications for Portable Cables Longer Than 500 Feet."

(ii) Short-circuit protection shall be provided by a protective device with an instantaneous trip setting as near as practicable to the maximum starting-current-inrush value, but the setting shall not exceed the trip value specified in the Bureau of Mines approval for the equipment for which the portable (trailing) cable furnishes electric power.

(6) Have nominal outside dimensions consistent with IPCEA standards. (See Tables 4, 5, 6, and 7 in Appendix I.)

(7) Have conductors of No. 4 (AWG) minimum for direct-current mobile haulage units or No. 6 (AWG) minimum for alternating-current mobile haulage units.

(8) Have not more than five well-made temporary splices in a single length of portable cable.

(b) Sectionalized portable cables will be acceptable provided the connectors used inby the last open crosscut in a gassy mine meet the requirements of § 18.41.

(c) A portable cable having conductors smaller than No. 6 (AWG), when used with a trolley tap and a rail clamp, shall have

well insulated single conductors not smaller than No. 6 (AWG) spliced to the outby end of each conductor. All splices shall be made in a workmanlike manner to insure good electrical conductivity, insulation, and mechanical strength.

(d) Suitable provisions shall be made to facilitate disconnection of portable cable quickly and conveniently for replacement.

§ 18.36 Cables between machine components.

(a) Cables between machine components shall have: (1) Adequate current-carrying capacity for the loads involved, (2) short-circuit protection, (3) insulation compatible with the impressed voltage, and (4) flame-resistant properties unless totally enclosed within a flame-resistant hose conduit or other flame-resistant material.

(b) Cables between machine components shall be: (1) Clamped in place to prevent undue movement, (2) protected from mechanical damage by position, flame-resistant hose conduit, metal tubing, or troughs (flexible or threaded rigid metal conduit will not be acceptable), (3) isolated from hydraulic lines, and (4) protected from abrasion by removing all sharp edges which they might contact.

(c) Cables (cords) for remote-control circuits extending from permissible equipment will be exempted from the requirements of conduit enclosure provided the total electrical energy carried is intrinsically safe or that the cables are constructed with heavy jackets, the sizes of which are stated in Table 6 of Appendix I. Cables (cords) provided with hose-conduit protection shall have a tensile strength not less than No. 16 (AWG) three-conductor, type SO cord. (Reference: 7.7.7 IPCEA Pub. No. S-19-81, Fourth Edition.) Cables (cords) constructed with heavy jackets shall consist of conductors not smaller than No. 14 (AWG) regardless of the number of conductors.

§ 18.37 Lead entrances.

(a) Insulated cable(s), which must extend through an outside wall of an explosion-proof enclosure, shall pass through a stuffing-box lead entrance. All sharp edges that might damage insulation shall be removed from stuffing boxes and packing nuts.

(b) Stuffing boxes shall be so designed, and the amount of packing used shall be such, that with the packing properly compressed, the gland nut still has a clearance distance of 1/8 inch or more to travel without meeting interference by parts other than packing. (See Figures 8, 9, and 10 in Appendix II.)

(c) Packing nuts and stuffing boxes shall be secured against loosening.

(d) Compressed packing material shall be in contact with the cable jacket for a length of not less than 1/2 inch.

(e) Special requirements for glands in which asbestos-packing material is specified are:

(1) Asbestos-packing material shall be untreated, not less than 3/16-inch diameter if round, or not less than 3/16 by 3/16 inch if square. The width of the space for packing material shall not exceed by more than 50 percent the diameter or width of the uncompressed packing material.

(2) The allowable diametrical clearance between the cable and the holes in the stuffing box and packing nut shall not exceed 75 percent of the nominal diameter or width of the packing material.

(f) Special requirements for glands in which a compressible material (example—synthetic elastomers) other than asbestos is specified, are:

(1) The packing material shall be flame resistant.

(2) The radial clearance between the cable jacket and the nominal inside diameter of the packing material shall not exceed 1/32

inch, based on the nominal specified diameter of the cable.

(3) The radial clearance between the nominal outside diameter of the packing material and the inside wall of the stuffing box (that portion into which the packing material fits) shall not exceed 1/32 inch.

§ 18.38 Leads through common walls.

(a) Insulated studs will be acceptable for use in a common wall between two explosion-proof enclosures.

(b) When insulated wires or cables are extended through a common wall between two explosion-proof enclosures in insulating bushings, such bushings shall be not less than 1-inch long and the diametrical clearance between the wire or cable insulation and the holes in the bushings shall not exceed 1/16 inch (based on the nominal specified diameter of the cable). The insulating bushings shall be secured in the metal wall.

(c) Insulated wires or cables conducted from one explosion-proof enclosure to another through conduit, tubing, piping, or other solid-wall passageways will be acceptable provided one end of the passageway is plugged, thus isolating one enclosure from the other. Glands or secured bushings with close-fitting holes through which the wires or cables are conducted will be acceptable for plugging. The tubing or duct specified for the passageway shall be brazed or welded into the walls of both explosion-proof enclosures with continuous gas-tight welds.

(d) If wires and cables are taken through openings closed with sealing compounds, the design of the opening and characteristics of the compounds shall be such as to hold the sealing material in place without tendency of the material to crack or flow out of its place. The material also must withstand explosion tests without cracking or loosening.

(e) Openings through common walls between explosion-proof enclosures not provided with bushings or sealing compound, shall be large enough to prevent pressure piling.

§ 18.39 Hose conduit.

Hose conduit shall be provided for mechanical protection of all machine cables that are exposed to damage. Hose conduit shall be flame resistant and have a minimum wall thickness of 3/16 inch. The flame resistance of hose conduit will be determined in accordance with the requirements of § 18.65.

§ 18.40 Cable clamps and grips.

Insulated clamps shall be provided for all portable (trailing) cables to prevent strain on the cable terminals of a machine. Also insulated clamps shall be provided to prevent strain on both ends of each cable or cord leading from a machine to a detached or separately mounted component. Cable grips anchored to the cable may be used in lieu of insulated strain clamps. Supporting clamps for cables used for wiring around machines shall be provided in a manner acceptable to the Bureau.

§ 18.41 Plug and receptacle-type connectors.

(a) Plug and receptacle-type connectors for use inby the last open crosscut in a gassy mine shall be so designed that insertion or withdrawal of a plug cannot cause incendive arcing or sparking. Also, connectors shall be so designed that no live terminals, except as hereinafter provided, are exposed upon withdrawal of a plug. The following types will be acceptable:

(1) Connectors in which the mating or separation of the male and female electrodes is accomplished within an explosion-proof enclosure.

(2) Connectors that are mechanically or electrically interlocked with an automatic circuit-interrupting device.

(i) *Mechanically interlocked connectors.* If

a mechanical interlock is provided the design shall be such that the plug cannot be withdrawn before the circuit has been interrupted and the circuit cannot be established with the plug partially withdrawn.

(i) *Electrically interlocked connectors.* If an electrical interlock is provided, the total load shall be removed before the plug can be withdrawn and the electrical energy in the interlocking pilot circuit shall be intrinsically safe, unless the pilot circuit is opened within an explosion-proof enclosure.

(3) Single-pole connectors for individual conductors of a circuit used at terminal points shall be so designed that all plugs must be completely inserted before the control circuit of the machine can be energized.

(b) Plug and receptacle-type connectors used for sectionalizing the cables outby the last open crosscut in a gassy mine need not be explosion-proof or electrically interlocked provided such connectors are designed and constructed to prevent accidental separation.

(c) Conductors shall be securely attached to the electrodes in a plug or receptacle and the connectors shall be totally enclosed.

(d) Molded-elastomer connectors will be acceptable provided:

(1) Any free space within the plug or receptacle is isolated from the exterior of the plug.

(2) Joints between the elastomer and metal parts are not less than 1 inch wide and the elastomer is either bonded to or fits tightly with metal parts.

(e) The contacts of all line-side connectors shall be shielded or recessed adequately.

(f) For a mobile battery-powered machine, a plug padlocked to the receptacle will be acceptable in lieu of an interlock provided the plug is held in place by a threaded ring or equivalent mechanical fastening in addition to the padlock. A connector within a padlocked enclosure will be acceptable.

§ 18.42 Explosion proof distribution boxes.

(a) A cable passing through an outside wall(s) of a distribution box shall be conducted either through a packing gland or an interlocking plug and receptacle.

(b) Short-circuit protection shall be provided for each branch circuit connected to a distribution box. The current-carrying capacity of the specified connector shall be compatible with the automatic circuit-interrupting device.

(c) Each branch receptacle shall be plainly and permanently marked to indicate its current-carrying capacity and each receptacle shall be such that it will accommodate only an appropriate plug.

(d) Provision shall be made to relieve mechanical strain on all connectors to distribution boxes.

§ 18.43 Explosion-proof splice boxes.

Internal connections shall be rigidly held and adequately insulated. Strain clamps shall be provided for all cables entering a splice box.

§ 18.44 Battery boxes and batteries (exceeding 12 volts).

(a) A battery box (tray), including the cover, shall be made of steel the thickness of which is to be based on the total weight of the battery and tray, as follows:

Weight:	Thickness in inches
2,000 lb. maximum	$\frac{3}{16}$
2,001-4,500 pound	$\frac{1}{4}$
Over 4,500 pound	$\frac{5}{16}$

Materials other than steel that provide equivalent strength will be considered.

(b) Battery-box covers shall be lined with a flame-resistant insulating material, preferably bonded to the inside of the cover, unless equivalent protection is provided.

(c) Battery-box covers shall be provided with a means for securing them in closed position.

(d) Battery boxes shall be adequately ventilated. The size and locations of openings for ventilation shall prevent access to cell terminals.

(e) Battery cells shall be insulated from the battery-box walls and supported on insulating material. Insulating materials that may be subject to chemical reaction with electrolyte shall be treated to resist such action.

(f) Drainage holes shall be provided in the bottom of each battery box.

(g) Cell terminals shall be "burned" on. Bolted connectors (two-bolt type) may be accepted on end terminals.

(h) Battery connections shall be so designed that battery potential will be minimized between adjacent cells, and total battery potential shall not be available between adjacent cells.

(i) Cables within a battery box shall be protected against abrasion of the insulation.

(j) Each wire or cable leaving a battery box on storage-battery-operated equipment shall have short-circuit protection in an explosion-proof enclosure as close as practicable to the battery terminals. A protective device installed within a nearby explosion-proof enclosure will be acceptable provided the exposed portion of the cable from the battery box to the enclosure does not exceed approximately 36 inches in length; in addition, special care shall be taken to protect each wire or cable from damage.

(k) A diagram showing the battery connections between cells and between trays shall be submitted. The number, type, rating, and manufacturer of the battery cells shall be included in specifications.

§ 18.45 Cable reels.

(a) A self-propelled machine, that receives electrical energy through a portable cable and is designed to travel at speeds exceeding 2.5 miles per hour, shall have a mechanically, hydraulically, or electrically driven reel upon which to wind the portable cable.

(b) The enclosure for moving contacts or slip rings of a cable reel shall be explosion-proof.

(c) Cable-reel bearings shall not constitute an integral part of a circuit for transmitting electrical energy.

(d) Cable reels for shuttle cars and locomotives shall maintain positive tension on the portable cable during reeling and unreeling. Such tension shall only be high enough to prevent a machine from running over its own cable(s).

(e) Cable reels and spooling devices shall be insulated with flame-resistant material.

(f) The maximum speed of travel of a machine when receiving power through a portable (trailing) cable shall not exceed 6 miles per hour.

(g) Diameters of cable reel drums and sheaves should be large enough to prevent undue bending strain on cables.

§ 18.46 Headlights.

(a) Headlights shall be constructed as explosion-proof enclosures.

(b) Headlights shall be mounted to provide illumination where it will be most effective. They shall be protected from damage by guarding or location.

(c) Lenses for headlights shall be glass or other suitable material with physical characteristics equivalent to $\frac{1}{2}$ -inch thick tempered glass, such as "Pyrex." Lenses shall meet the requirements of the tests prescribed in § 18.66.

(d) Lenses permanently fixed in a ring with lead epoxy, or equivalent will be acceptable provided only lens assemblies meeting the original manufacturer's specifications are used as replacements.

(e) If a single lead gasket is used, the contact surface of the opposite side of the lens shall be plane within a maximum deviation of 0.002 inch.

§ 18.47 Voltage limitation.

(a) A tool or switch held in the operator's hand or supported against his body will not be approved with a nameplate rating exceeding 300 volts direct current or alternating current.

(b) A battery-powered machine shall not have a nameplate rating exceeding 240 volts, nominal (120 lead-acid cells or equivalent).

(c) Other direct-current machines shall not have a nameplate rating exceeding 550 volts.

(d) An alternating-current machine shall not have a nameplate rating exceeding 660 volts, except that a machine may have a nameplate rating greater than 660 volts but not exceeding 4,160 volts when the following conditions are complied with:

(1) Adequate clearances and insulation for the particular voltage(s) are provided in the design and construction of the equipment, its wiring, and accessories.

(2) A continuously monitored, fall-safe grounding system is provided that will maintain the frame of the equipment and the frames of all accessory equipment at ground potential. Also, the equipment, including its controls and portable (trailing) cable will be deenergized automatically upon the occurrence of an incipient ground fault. The ground-fault-tripping current shall be limited by grounding resistors(s) to that necessary for dependable relaying. The maximum ground-fault-tripping current shall not exceed 25 amperes.

(3) All high voltage switch gear and control for equipment having a nameplate rating exceeding 1,000 volts are located remotely and operated by remote control at the main equipment. Potential for remote control shall not exceed 120 volts.

(4) Portable (trailing) cable for equipment with nameplate ratings from 661 volts through 1,000 volts shall include grounding conductors, a ground check conductor, and grounded metallic shields around each power conductor or a grounded metallic shield over the assembly; except that on machines employing cable reels, cables without shields may be used if the insulation is rated 2,000 volts or more.

(5) Portable (trailing) cable for equipment with nameplate ratings from 1,001 volts through 4,160 volts shall include grounding conductors, a ground check conductor, and grounded metallic shields around each power conductor.

(6) The Bureau reserves the right to require additional safeguards for high-voltage equipment, or modify the requirements to recognize improved technology.

§ 18.48 Circuit-interrupting devices.

(a) Each machine shall be equipped with a circuit-interrupting device by means of which all power conductors can be deenergized at the machine. A manually operated controller will not be acceptable as a service switch.

(b) When impracticable to mount the main-circuit-interrupting device on a machine, a remote enclosure will be acceptable. When contacts are used as a main-circuit-interrupting device, a means for opening the circuit shall be provided at the machine and at the remote contactors.

(c) Separate two-pole switches shall be provided to deenergize power conductors for headlights or floodlights.

(d) Each handheld tool shall be provided with a two-pole switch of the "dead-man-control" type that must be held closed by hand and will open when hand pressure is released.

(e) A machine designed to operate from both trolley wire and portable cable shall be provided with a transfer switch, or equivalent, which prevents energizing one from the other. Such a switch shall be designed to prevent electrical connection to the machine frame when the cable is energized.

(f) Belt conveyors shall be equipped with control switches to automatically stop the driving motor in the event the belt is stopped, or abnormally slowed down.

NOTE: Short transfer-type conveyors will be exempted from this requirement when attended.

§ 18.49 Connection boxes on machines.

Connection boxes used to facilitate replacement of cables or machine components shall be explosion-proof. Portable-cable terminals on cable reels need not be in explosion-proof enclosures provided that connections are well made, adequately insulated, protected from damage by location, and securely clamped to prevent mechanical strain on the connections.

§ 18.50 Protection against external arcs and sparks.

Provision shall be made for maintaining the frames of all off-track machines and the enclosures of related detached components at safe voltages by using one or a combination of the following:

(a) A separate conductor(s) in the portable cable in addition to the power conductors by which the machine frame can be connected to an acceptable grounding medium, and a separate conductor in all cables connecting related components not on a common chassis. The cross-sectional area of the additional conductor(s) shall not be less than 50 percent of that of one power conductor unless a ground-fault tripping relay is used, in which case the minimum size may be No. 8 (AWG). Cables smaller than No. 6 (AWG) shall have an additional conductor(s) of the same size as one power conductor.

(b) A means of actuating a circuit-interrupting device, preferably at the outby end of the portable cable.

NOTE: The frame to ground potential shall not exceed 40 volts.

(c) A device(s) such as a diode(s) of adequate peak inverse voltage rating and current-carrying capacity to conduct possible fault current through the grounded power conductor. Diode installations shall include:

- (1) An overcurrent device in series with the diode, the contacts of which are in the machine's control circuit; and
- (2) a blocking diode in the control circuit to prevent operation of the machine with the polarity reversed.

§ 18.51 Electrical protection of circuits and equipment.

(a) An automatic circuit-interrupting device(s) shall be used to protect each ungrounded conductor of a branch circuit at the junction with the main circuit when the branch-circuit conductor(s) has a current carrying capacity less than 50 percent of the main circuit conductor(s), unless the protective device(s) in the main circuit will also provide adequate protection for the branch circuit. The setting of each device shall be specified. For headlight and control circuits, each conductor shall be protected by a fuse or equivalent. Any circuit that is entirely contained in an explosion-proof enclosure shall be exempt from these requirements.

(b) Each motor shall be protected by an automatic overcurrent device. One protective device will be acceptable when two motors of the same rating operate simultaneously and perform virtually the same duty.

(1) If the overcurrent-protective device in a direct-current circuit does not open both lines, particular attention shall be given to marking the polarity at the terminals or otherwise preventing the possibility of reversing connections which would result in changing the circuit interrupter to the grounded line.

(2) Three-phase alternating-current motors shall have an overcurrent-protective de-

vice in at least two phases such that actuation of a device in one phase will cause the opening of all three phases.

(c) Circuit-interrupting devices shall be so designed that they can be reset without opening the compartment in which they are enclosed.

(d) All magnetic circuit-interrupting devices shall be mounted in a manner to preclude the possibility of their closing by gravity.

§ 18.52 Renewal of fuses.

Enclosure covers that provide access to fuses, other than headlight, control-circuit, and handheld-tool fuses, shall be interlocked with a circuit-interrupting device. Fuses shall be inserted on the load side of the circuit interrupter.

SUBPART C—INSPECTIONS AND TESTS

§ 18.60 Detailed inspection of components.

An inspection of each electrical component shall include the following:

(a) A detailed check of parts against the drawings submitted by the applicant to determine that: (1) The parts and drawings coincide; and (2) the minimum requirements stated in this part have been met with respect to materials, dimensions, configuration, workmanship, and adequacy of drawings and specifications.

(b) Exact measurement of joints, journal bearings, and other flame-arresting paths.

(c) Examination for unnecessary through holes.

(d) Examination for adequacy of lead-entrance design and construction.

(e) Examination for adequacy of electrical insulation and clearances between live parts and between live parts and the enclosure.

(f) Examination for weaknesses in welds and flaws in castings.

(g) Examination for distortion of enclosures before tests.

(h) Examination for adequacy of fastenings, including size, spacing, security, and possibility of bottoming.

§ 18.61 Final inspection of complete machine.

(a) A completely assembled new machine or a substantially modified design of a previously approved one shall be inspected by a qualified representative(s) of the Bureau. When such inspection discloses any unsafe condition or any feature not in strict conformance with the requirements of this part it shall be corrected before an approval of the machine will be issued. A final inspection will be conducted at the site of manufacture, rebuilding, or other locations at the option of the Bureau.

(b) Complete machines shall be inspected for:

(1) Compliance with the requirements of this part with respect to joints, lead entrances, and other pertinent features.

(2) Wiring between components, adequacy of mechanical protection for cables, adequacy of clamping of cables, positioning of cables, particularly with respect to proximity to hydraulic components.

(3) Adequacy of protection against damage to headlights, push buttons, and any other vulnerable component.

(4) Settings of overload- and short-circuit protective devices.

(5) Adequacy of means for connecting and protecting portable cable.

§ 18.62 Tests to determine explosion-proof characteristics.

(a) In testing for explosion-proof characteristics of an enclosure, it shall be filled and surrounded with various explosive mixtures of natural gas and air. The explosive mixture within the enclosure will be ignited electrically and the explosion pressure developed therefrom recorded. The point of ignition

within the enclosure will be varied. Motor armatures and/or rotors will be stationary in some tests and revolving in others. Coal dust, produced by grinding coal from the Pittsburgh coal bed to a fineness of minus 200 mesh, will be added to the explosive gas-air mixtures in some tests. At the Bureau's discretion dummies may be substituted for internal electrical components during some of the tests. Not less than 16 explosion tests shall be conducted; however, the nature of the enclosure and the results obtained during the tests will determine whether additional tests shall be made.

(b) Explosion tests of an enclosure shall not result in:

(1) Discharge of flame.

(2) Ignition of an explosive mixture surrounding the enclosure.

(3) Development of afterburning.

(4) Rupture of any part of the enclosure or any panel or divider within the enclosure.

(5) Permanent distortion of the enclosure exceeding 0.040 inch per linear foot.

(c) When a pressure exceeding 125 pounds per square inch (gauge) is developed during explosion tests, the Bureau reserves the right to reject an enclosure(s) unless (1) constructional changes are made that result in a reduction of pressure to 125 pounds per square inch (gauge) or less, or (2) the enclosure withstands a dynamic pressure of twice the highest value recorded in the initial test.

§ 18.63 Tests of battery boxes.

Battery boxes will be tested at the Bureau's discretion to determine the adequacy of ventilation, electrical clearances, insulation, and suitability for the intended service. Such tests will be conducted at the site of manufacture or assembly, or on the Bureau's premises.

§ 18.64 Tests for flame resistance of cables.

(a) *Size of test specimen.* Three specimens each 3 feet long with 5 inches of cable jacket and 2½ inches of conductor insulation removed from each conductor at both ends of each specimen.

(b) *Flame-test apparatus.* The principal parts of the apparatus within and/or appended to the 17-inch deep x 14½-inch high x 39-inch wide rectangular test gallery are:

(1) A source of electric current (either a.c. or d.c.) for loading the cable specimen with means for close regulation.

(2) A suitable ammeter to measure the electric current imposed on the cable specimen conductors.

(3) A suitable temperature measuring device to determine the conductor temperature.

(4) A rack for supporting the cable specimen. It shall have three (3) metal rods installed on the same level with spaces of 16 and 8 inches between rods from left to right. The rods shall be wrapped with asbestos tape to reduce the cooling effect. The height of the rack shall be sufficient to permit the tip of the inner cone of a Tirrell burned flame to touch the jacket of the cable specimen when the flame has been adjusted to proper height.

(5) An electric timer or stopwatch to measure the duration of the tests.

(6) A standard ¾-inch Tirrell burner for igniting the cable specimen.

(7) A ventilated hood or canopy that, is substantially free from external air currents on the specimen.

(c) *Mounting of test specimens.* The test specimen shall be placed on the rack and connected to the electric source. It shall be centered on the two outside supporting rods with approximately one inch of jacket extending beyond each rod. The thermocouple of the temperature measuring device shall be held in intimate contact with the conductor under a flap of jacket and insulation 26

inches from the left end of the specimen. The flap shall be held tightly, after insertion of the thermocouple, by tying with wire.

(d) *Procedure for flame tests of cables.* (1) The specimen will be heated electrically until the conductor reaches a temperature of 400° F., using a current that is five times the conductor rating given in Tables 1, 2, and 3 in Appendix I.

(2) When the conductor has reached a temperature of 400° F., the flame of a Tirrell gas burner, adjusted to give an overall free flame height of 5 inches and a 3-inch inner cone with natural gas, will be applied directly beneath the specimen at a point 14 inches from its left end.

(3) After subjecting the specimen to external flame for 1 minute, the heating current and gas flame will be cut off simultaneously.

(e) *Test requirements.* The specimen will be considered as having failed the test if the length of the burned area exceeds 6 inches or if burning continues longer than 4 minutes after the gas flame has been cut off. Three specimens of cable will be subjected to the flame-resistance test. If two of the three specimens meet the test requirements the cable will be accepted for listing by the Bureau as "flame resistant".

(f) *Acceptance marking.* Accepted cables shall be suitably marked with an identifying number assigned by the Bureau. Portable and remote-control cables shall have the marking impressed in the jacket or as raised letters and figures on an impressed background at intervals not exceeding 12 feet. Other accepted cables shall be marked at intervals not exceeding 3 feet in the same manner or have durable marking printed on the surface of the jacket.

§ 18.65 Flame test of conveyor belting and hose.

(a) *Size of test specimen.* (1) Conveyor belting—four specimens each 6 inches long by ½-inch wide by belt thickness, two cut parallel to the warp and two parallel to the weft.

(2) Hose—four specimens each 6 inches long by ½-inch wide by thickness of the hose.

(b) *Flame-test apparatus.* The principal parts of the apparatus within and/or appended to a 21-inch cubical test gallery are:

(1) A support stand with a ring clamp and wire gauze.

(2) A Pittsburgh-Universal Bunsen-type burner (inside diameter of burner tube 11 mm.), or equivalent, mounted in a burner placement guide in such a manner that the burner may be placed beneath the test specimen, or pulled away from it by an external knob on the front panel of the test gallery.

(3) A variable-speed electric fan and an ASME flow nozzle (16–8½ inches reduction) to attain constant air velocities at any speed between 50–500 feet a minute.

(4) An electric timer or stopwatch to measure the duration of the tests.

(5) A mirror mounted inside the test gallery to permit a rear view of the test specimen through the viewing door.

(c) *Mounting of test specimen.* The specimen shall be clamped in a support with its free end centered 1 inch above the burner top. The longitudinal axis shall be horizontal and the transverse axis inclined at 45° to the horizontal. Under the test specimen shall be clamped a piece of 20-mesh iron-wire gauze, 5 inches square, in a horizontal position ¼ inch below the pulley cover edge of the specimen and with about ½ inch of the specimen extending beyond the edge of the gauze.

(d) *Procedure for flame tests.* (1) The Bunsen burner, retracted from the test position, shall be adjusted to give a blue flame 3 inches in height with natural gas.

(2) The observation door of the gallery shall be closed for the entire test.

(3) The burner flame shall be applied to the free end of the specimen for 1 minute in still air.

(4) At the end of 1 minute the burner flame shall be removed, the ventilating fan turned on to give an air current having a velocity of 300 feet per minute, and the duration of flame measured.

(5) After the test specimen ceases to flame, it shall remain in the air current for at least 3 minutes to determine the presence and duration of afterglow. If a glowing specimen exhibits flame within 3 minutes the duration of flame shall be added to the duration of flame obtained according to subparagraph (4) of this paragraph.

(e) *Test requirements.* The tests of the four specimens cut from any sample shall not result in either duration of flame exceeding an average of 1 minute after removal of the applied flame or afterglow exceeding an average of 3 minutes duration.

(f) *Acceptance markings.* (1) Conveyor belting—conveyor belts accepted by the Bureau of Mines as flame-resistant (fire-resistant) shall be marked as follows: Metal stencils furnished by the manufacturer shall be used during the vulcanizing process to produce letters depressed into the conveyor belt with the words "Fire-Resistant, U.S.B.M. No." This number will be assigned to the manufacturer after the sample has passed the tests. The letters and numbers shall be at least ½ inch high. The acceptance markings shall be placed approximately 1 inch from the edge of the carrying (top) cover of the conveyor belt and spaced at intervals not exceeding 30 feet for the entire length of the conveyor belt. The markings shall be so placed that they are alternately at opposite edges of the belt. Where cover thickness does not permit markings in accordance with the foregoing, other permanent markings may be accepted.

(2) Hose—hose conduit accepted by the Bureau of Mines as flame-resistant shall be marked as follows: Impressed letters, raised letters on depressed background, or printed letters with the words "Flame-Resistant, U.S.B.M. No." at intervals not exceeding 3 feet. This number will be assigned to the manufacturer after the sample has passed the tests. The letters and numbers shall be at least ¼-inch high.

§ 18.6 Tests of windows and lenses.

(a) *Impact tests.* A 4-pound cylindrical weight with a 1-inch-diameter hemispherical striking surface shall be dropped (free fall) to strike the window or lens in its mounting, or the equivalent thereof, at or near the center. Three of four samples shall withstand without breakage the impact according to the following table:

Lens diameter, (D), inches:	Height of fall inches
D < 4	6
4 ≤ D < 5	9
5 ≤ D < 6	15
6 ≤ D	24

Windows or lenses of smaller diameter than 1 inch may be tested by alternate methods at the discretion of the Bureau.

(b) *Thermal-shock tests.* Four samples of the window or lens will be heated in an oven for 15 minutes to a temperature of 150° C. (302° F.) and immediately upon withdrawal of the samples from the oven they will be immersed in water having a temperature between 15° C. (59° F.) and 20° C. (68° F.). Three of the four samples shall show no defect or breakage from this thermal-shock test.

§ 18.67 Static-pressure tests.

Static-pressure tests shall be conducted by the applicant on each enclosure of a specific design when the Bureau determines that visual inspection will not reveal defects in

castings or in single-seam welds. Such test procedure shall be submitted to the Bureau for approval and the specifications on file with the Bureau shall include a statement assuring that such tests will be conducted. The static pressure to be applied shall be 150 pounds per square inch (gage) or one and one-half times the maximum pressure recorded in the Bureau's explosion tests, whichever is greater.

§ 18.68 Tests for intrinsic safety.

(a) General:

(1) Tests for intrinsic safety will be conducted under the general concepts of "intrinsically safe" as defined in Subpart A of this part. Further tests or requirements may be added at any time if features of construction or use or both indicate them to be necessary. Some tests included in these requirements may be omitted on the basis of previous experience.

(2) Intrinsically safe circuits and/or components will be subjected to tests consisting of making and breaking the intrinsically safe circuit under conditions judged to simulate the most hazardous probable faults or malfunctions. Tests will be made in the most easily ignitable mixture of methane or natural gas and air. The method of making and breaking the circuit may be varied to meet a particular condition.

(3) Those components which affect intrinsic safety must meet the following requirements:

(i) Current limiting devices shall consist of two equivalent devices each of which singly will provide intrinsic safety. They shall not be operated at more than 50 percent of their ratings.

(ii) Components of reliable construction shall be used and they shall be so mounted as to provide protection against shock and vibration in normal use.

(iii) Semiconductors shall be amply sized. Rectifiers and transistors shall be operated at not more than two-thirds of their rated current and permissible peak inverse voltage. Zener diodes shall be operated at not more than one-half of their rated current and shall short under abnormal conditions.

(iv) Electrolytic capacitors shall be operated at not more than two-thirds of their rated voltage. They shall be designed to withstand a test voltage of 1,500 volts.

(4) Intrinsically safe circuits shall be so designed that after failure of a single component, and subsequent failures resulting from this first failure, the circuit will remain intrinsically safe.

(5) The circuit will be considered as intrinsically safe if in the course of testing no ignitions occur.

(b) Complete intrinsically safe equipment powered by low energy batteries:

(1) Short-circuit tests shall be conducted on batteries at normal operating temperature. Tests may be made on batteries at elevated temperature if such tests are deemed necessary.

(2) Resistance devices for limiting short-circuit current shall be an integral part of the battery, or installed as close to the battery terminal as practicable.

(3) Transistors of battery-operated equipment may be subjected to thermal "run-away" tests to determine that they will not ignite an explosive atmosphere.

(4) A minimum of 1,000 make-break sparks will be produced in each test for direct current circuits with consideration given to reversed polarity.

(5) Tests on batteries shall include series and/or parallel combinations of twice the normal battery complement, and the effect of capacitance and inductance, added to that normally present in the circuit.

(6) No ignition shall occur when approximately ½ inch of a single wire strand representative of the wire used in the equip-

ment or device is shorted across the intrinsically safe circuit.

(7) Consideration shall be given to insure against accidental reversal of polarity.

(c) Line-powered equipment and devices:

(1) Line-powered equipment shall meet all applicable provisions specified for battery-powered equipment.

(2) Nonintrinsically safe components supplying power for intrinsically safe circuits shall be housed in explosion-proof enclosures and be provided with energy limiting components in the enclosure.

(3) Wiring for nonintrinsically safe circuits shall not be intermingled with wiring for intrinsically safe circuits.

(4) Transformers that supply power for intrinsically safe circuits shall have the primary and secondary windings physically separated. They shall be designed to withstand a test voltage of 1,500 volts when rated 125 volts or less and 2,500 volts when rated more than 125 volts.

(5) The line voltage shall be increased to 120 percent of nominal rated voltage to cover power line voltage variations.

(6) In investigations of alternating current circuits a minimum of 5,000 make-break sparks will be produced in each test.

(d) The design of intrinsically safe circuits shall preclude extraneous voltages caused by insufficient isolation or inductive coupling. The investigation shall determine the effect of ground faults where applicable.

(e) Identification markings: Circuits and components of intrinsically safe equipment and devices shall be adequately identified by marking or labeling. Battery-powered equipment shall be marked to indicate the manufacturer, type designation, ratings, and size of batteries used.

§ 18.69 Adequacy tests.

The Bureau reserves the right to conduct appropriate test(s) to verify the adequacy of equipment for its intended service.

SUBPART D—MACHINES ASSEMBLED WITH CERTIFIED OR EXPLOSION-PROOF COMPONENTS, FIELD MODIFICATIONS OF APPROVED MACHINES, AND PERMITS TO USE EXPERIMENTAL EQUIPMENT

§ 18.80 Approval of machines assembled with certified or explosion-proof components.

(a) A machine may be a new assembly, or a machine rebuilt to perform a service that is different from the original function, or a machine converted from nonpermissible to permissible status, or a machine converted from direct- to alternating-current power or vice versa. Properly identified components that have been investigated and accepted for application on approved machines will be accepted in lieu of certified components.

(b) A single layout drawing (see Figure 1 in Appendix II) or photographs will be acceptable to identify a machine that was assembled with certified or explosion-proof components. The following information shall be furnished:

- (1) Overall dimensions.
- (2) Wiring diagram.
- (3) List of all components (see Figure 2 in Appendix II) identifying each according to its certification number or the approval number of the machine of which the component was a part.
- (4) Specifications for:
 - (i) Overcurrent protection of motors.
 - (ii) All wiring between components, including mechanical protection such as hose conduits and clamps.
 - (iii) Portable cable, including the type, length, outside diameter, and number and size of conductors.
 - (iv) Insulated strain clamp for machine end of portable cable.
 - (v) Short-circuit protection to be provided at outby end of portable cable.

(c) The Bureau reserves the right to inspect and to retest any component(s) that had been in previous service, as it deems appropriate.

(d) Fees for testing under this subpart shall be consistent with those stated in § 18.7.

(e) When the Bureau has determined that all applicable requirements of this part have been met, the applicant will be authorized to attach an approval plate to each machine that is built in strict accordance with the drawings and specifications filed with the Bureau and listed with the Bureau's formal approval. A design of the approval plate will accompany the notification of approval. (Refer to §§ 18.10 and 18.11.)

(f) Approvals are issued only by Approval and Testing, Bureau of Mines, 4800 Forbes Avenue, Pittsburgh, Pa. 15213.

§ 18.81 Field modification of approved (permissible) equipment; application for approval of modification; approval of plans for modification before modification.

(a) An owner of approved (permissible) equipment who desires to make modifications in such equipment shall apply in writing to make such modifications. The application, together with the plans of modifications, shall be filed with Approval and Testing, Bureau of Mines, 4800 Forbes Avenue, Pittsburgh, Pa. 15213.

(b) Proposed modifications shall conform with the applicable requirements of Subpart B of this part, and shall not substantially alter the basic functional design that was originally approved for the equipment.

(c) Upon receipt of the application for modification, and after such examination and investigation as may be deemed necessary by the Bureau, the Bureau will notify the owner and the District office of the mine workers' organization having jurisdiction at the mine where such equipment is to be operated stating the modifications which are proposed to be made and the Bureau's action thereon.

§ 18.82 Permit to use experimental electric face equipment in a gassy mine or tunnel.

(a) Application for permit. An application for a permit to use experimental electric face equipment in a gassy mine or tunnel will be considered only when submitted by the user of the equipment. The user shall submit a written application to the Director, Bureau of Mines, U.S. Department of the Interior, Washington, D.C. 20240, and send a copy to Approval and Testing, Bureau of Mines, 4800 Forbes Avenue, Pittsburgh, Pa. 15213.

(b) Fees. The applicable fees for work to be done according to this subpart shall coincide with the fees stated in § 18.7.

(c) Requirements—(1) Constructional. (1) Experimental equipment shall be so constructed that it will not constitute a fire or explosion hazard.

(ii) Enclosures designed as explosion-proof, unless already certified, or components of previously approved (permissible) machines, shall be submitted to the Bureau for inspection and test and shall meet the applicable design requirements of Subpart B of this part. Components designed as intrinsically safe also shall be submitted to the Bureau for investigation.

(iii) The Bureau may, at its discretion, waive the requirements for detailed drawings of component parts, inspections, and tests provided satisfactory evidence is submitted that an enclosure has been certified, or otherwise accepted by a reputable testing agency whose standards are substantially equivalent to those set forth in Subpart B of this part.

(2) Specifications. The specifications for experimental equipment shall include a layout drawing (see Figure 1 in Appendix II) or photograph(s) with the components, in-

cluding overcurrent-protective device(s) with setting(s) identified thereon or separately; a wiring diagram; and descriptive material necessary to insure safe operation of the equipment. Drawings already filed with the Bureau need not be duplicated by the applicant, but shall be properly identified.

(d) Final inspection. Unless equipment is delivered to the Bureau for investigation, the applicant shall notify Approval and Testing, Bureau of Mines, 4800 Forbes Avenue, Pittsburgh, Pa. 15213, when and where the experimental equipment will be ready for inspection by a representative of the Bureau before installing it on a trial basis. Such inspection shall be completed before a permit will be issued.

(e) Issuance of permit. When the inspection discloses full compliance with the applicable requirements of this subpart, the Director of the Bureau will issue a permit sanctioning the operation of a single unit in a gassy mine or tunnel, as designated in the application. If the applicant is not the assembler of the equipment, a copy of the permit also may be sent to the assembler.

(f) Duration of permit. A permit will be effective for a period of 6 months. For a valid reason, to be stated in a written application, the Director of the Bureau of Mines may grant an extension of a permit for an additional period, not exceeding 6 months. Further extension will be granted only where, after investigation, the Director finds that for reasons beyond the control of the user, it has not been possible to complete the experiment within the period covered by the extended permit.

(g) Permit label. With the notification granting a permit, the applicant will receive a photographic copy of a permit label bearing the following:

- (1) Seal of the Bureau of Mines.
- (2) Permit number.
- (3) Expiration date of the permit.
- (4) Name of machine.
- (5) Name of the user and mine or tunnel.

The applicant shall attach the photographic copy of the permit label, or replica thereof, to the experimental equipment. If a photograph is used, a clear plastic covering shall be provided for it.

(h) Withdrawal of permit. The Director of the Bureau may rescind, for cause, and permit granted under this subpart.

APPENDIX I—LIST OF TABLES

Table No.	Title
1	Portable power cable ampacities—600 volts.
2	Portable cord ampacities—600 volts.
3	Portable power cable ampacities—601 to 5,000 volts.
5	Nominal dimension of flat cables with tolerances in inches—600 volts.
5	Nominal dimensions of flat cables with tolerances in inches—600 volts.
6	Nominal diameter of heavy jacketed cords with tolerances in inches—600 volts.
7	Nominal diameter of three-conductor portable power cables with tolerances in inches—601 to 5,000 volts.
8	Fuse ratings or instantaneous settings of circuit breakers for short-circuit protection of portable cables.
9	Specifications for portable cables longer than 500 feet.

TABLE 2—PORTABLE CORD AMPACITIES—600 VOLTS (AMPERES PER CONDUCTOR BASED ON 60° C. COPPER TEMPERATURE—40° C. AMBIENT)

Conductor size—AWG	1-3 conductor	4-6 conductor	7-9 conductor
14.....	15	12	8
12.....	20	16	11
10.....	25	20	14

TABLE 1.—PORTABLE POWER CABLE AMPACITIES—600 VOLTS (AMPERES PER CONDUCTOR BASED ON 60° C. COPPER TEMPERATURE—40° C. AMBIENT)

Conductor size—AWG or MCM	Single conductor	2-conductor, round or flat	3-conductor, round or flat	4-conductor	5-conductor	6-conductor
8	45	40	35	30	25	20
6	60	50	50	40	35	30
4	85	70	65	55	45	35
3	95	80	75	65	55	45
2	110	95	90	75	65	55
1	130	110	100	85	75	65
1/0	150	130	120	100	90	80
2/0	175	150	135	115	105	95
3/0	205	175	155	130	120	110
4/0	235	200	180	150	140	130
250	275	220	200	160	150	140
300	305	240	220	175	165	155
350	345	260	235	190	180	170
400	375	280	250	200	190	180
450	400	300	270	215	205	195
500	425	320	290	230	220	210

TABLE 3.—PORTABLE POWER CABLE AMPACITIES—601 TO 5,000 VOLTS (AMPERES PER CONDUCTOR BASED ON 75° C. COPPER TEMPERATURE—40° C. AMBIENT)

Conductor size—AWG or MCM	3-conductor types G-GC and SHC-GC 2,000 volts	3-conductor or type SHD-GC 2,001-5,000 volts
6	65	65
4	85	85
3	100	100
2	115	115
1	130	130
1/0	145	145
2/0	170	170
3/0	195	195
4/0	220	220
250	245	245
300	275	275
350	305	305

TABLE 4.—NOMINAL DIAMETERS OF ROUND CABLES WITH TOLERANCES IN INCHES—600 VOLTS

Conductor size—AWG or MCM	2-conductor			3-conductor			4-conductor Types W & G	5-conductor Types W & G	6-conductor Type W	Tolerance	
	Single conductor	Types W & G twisted	Type PG, 2 power, ground	Type PCG, 2 power, 2 control, ground	Types W & G	Type PG, 3 power, ground					Type PCG, 3 power, 2 control, ground
8	0.44	0.81	0.84	0.94	0.91	0.93	1.03	0.99	1.07	1.18	±0.03
6	.51	.93	.93	.98	1.01	1.03	1.18	1.10	1.21	1.31	±0.03
4	.57	1.08	1.08	1.10	1.17	1.20	1.29	1.27	1.40	1.52	±0.03
3	.63	1.17	1.17	1.20	1.24	1.27	1.31	1.34	1.48	1.61	±0.03
2	.66	1.27	1.27	1.29	1.34	1.34	1.39	1.48	1.61	1.75	±0.03
1	.74	1.44	1.44	1.44	1.51	1.52	1.52	1.68	1.88	2.05	±0.03
1/0	.77	1.52	1.52	1.52	1.65	1.68	1.68	1.79	1.96	2.13	±0.04
2/0	.82	1.65	1.65	1.65	1.75	1.79	1.79	1.93	2.13	2.32	±0.04
3/0	.87	1.77	1.77	1.77	1.89	1.93	1.93	2.07	2.26	2.49	±0.05
4/0	.93	1.92	1.92	1.92	2.04	2.13	2.13	2.26	2.46	2.71	±0.05
250	1.03	2.16	2.16	2.16	2.39	2.39	2.39	2.66	2.84	3.14	±0.06
300	1.09	2.32	2.32	2.32	2.56	2.56	2.56	2.84	3.14	3.40	±0.06
350	1.15	2.43	2.43	2.43	2.68	2.68	2.68	2.98	3.26	3.56	±0.06
400	1.20	2.57	2.57	2.57	2.82	2.82	2.82	3.14	3.40	3.70	±0.06
450	1.26	2.67	2.67	2.67	2.94	2.94	2.94	3.26	3.56	3.86	±0.06
500	1.31	2.76	2.76	2.76	3.03	3.03	3.03	3.40	3.70	4.00	±0.06

TABLE 5.—NOMINAL DIMENSIONS OF FLAT CABLES WITH TOLERANCES IN INCHES—600 VOLTS

Conductor size—AWG	2 conductor						3 conductor					
	Type W				Type G				Type G			
	Major		Minor		Major		Minor		Major		Minor	
	Outside diameter	Tolerance										
8	0.84	±0.04	0.51	±0.03	1.02	±0.04	0.56	±0.03	1.65	±0.06	0.67	±0.05
6	.93	±0.04	.56	±0.03	1.15	±0.04	.61	±0.03	1.85	±0.06	.75	±0.05
4	1.05	±0.04	.61	±0.03	1.26	±0.04	.68	±0.03	1.99	±0.06	.77	±0.05
3	1.14	±0.04	.68	±0.03	1.35	±0.04	.73	±0.03	2.10	±0.06	.81	±0.05
2	1.24	±0.04	.73	±0.03	1.55	±0.04	.81	±0.03	2.43	±0.06	.97	±0.05
1	1.40	±0.04	.81	±0.03	1.67	±0.04	.93	±0.03	2.84	±0.06	1.10	±0.05
1/0	1.51	±0.04	.93	±0.03	1.85	±0.04	.99	±0.03	3.14	±0.06	1.26	±0.05
2/0	1.63	±0.04	.99	±0.03	2.00	±0.04	1.03	±0.03	3.40	±0.06	1.41	±0.05
3/0	1.77	±0.04	1.03	±0.03	2.10	±0.04	1.10	±0.03	3.70	±0.06	1.56	±0.05
4/0	1.89	±0.04	1.10	±0.03	2.20	±0.04	1.10	±0.03	4.00	±0.06	1.71	±0.05

TABLE 6.—NOMINAL DIAMETERS OF HEAVY JACKETED CORDS WITH TOLERANCES IN INCHES—600 VOLTS

Conductor size—AWG	2 conductor		3 conductor		4 conductor		5 conductor		6 conductor		7 conductor	
	Diameter	Tolerance										
14	0.64	±0.02	0.67	±0.02	0.71	±0.02	0.78	±0.03	0.83	±0.03	0.89	±0.0
12	.68	±0.02	.72	±0.03	.76	±0.03	.83	±0.03	.89	±0.03	.98	±0.0
10	.73	±0.03	.80	±0.03	.84	±0.03	.90	±0.03	1.00	±0.03	1.07	±0.0

TABLE 7.—NOMINAL DIAMETERS OF 3-CONDUCTOR PORTABLE POWER CABLES WITH TOLERANCES IN INCHES—601 TO 5,000 VOLTS

Conductor size—AWG or MCM	Type G-GC (nonshielded) 2,000 volts		Type SHC-GC (shielded overall) 2,000 volts		Type SHD-GC (individually shielded power conductors) 2,001-3,000 volts		Type SHD-GC (individually shielded power conductors) 3,001-5,000 volts	
	Diameter	Tolerance	Diameter	Tolerance	Diameter	Tolerance	Diameter	Tolerance
6	1.25	+0.10, -0.06	1.39	+0.11, -0.07	1.62	+0.13, -0.08	1.78	+0.14, -0.09
4	1.40	+0.11, -0.07	1.55	+0.12, -0.08	1.77	+0.14, -0.09	1.90	+0.15, -0.10
3	1.48	+0.12, -0.07	1.62	+0.13, -0.08	1.84	+0.15, -0.09	1.98	+0.16, -0.10
2	1.55	+0.12, -0.08	1.71	+0.14, -0.09	1.92	+0.15, -0.10	2.09	+0.17, -0.11
1	1.74	+0.14, -0.09	1.89	+0.15, -0.09	2.04	+0.16, -0.10	2.18	+0.17, -0.11
1/0	1.84	+0.15, -0.09	2.02	+0.16, -0.10	2.18	+0.17, -0.11	2.34	+0.19, -0.12
2/0	1.99	+0.16, -0.10	2.16	+0.17, -0.11	2.29	+0.18, -0.12	2.46	+0.20, -0.12
3/0	2.12	+0.17, -0.11	2.30	+0.18, -0.11	2.45	+0.20, -0.12	2.62	+0.21, -0.13
4/0	2.30	+0.18, -0.12	2.48	+0.20, -0.12	2.62	+0.21, -0.13	2.76	+0.22, -0.14
250	2.46	+0.20, -0.12	2.70	+0.22, -0.13	2.84	+0.23, -0.14	3.00	+0.24, -0.14
300	2.63	+0.21, -0.13	2.84	+0.23, -0.14	3.00	+0.24, -0.14	3.16	+0.25, -0.14
350	2.75	+0.22, -0.14	2.97	+0.24, -0.15	3.16	+0.25, -0.14	3.32	+0.26, -0.14

TABLE 8—FUSE RATINGS OR INSTANTANEOUS SETTING OF CIRCUIT BREAKERS FOR SHORT-CIRCUIT PROTECTION OF PORTABLE CABLES AND CORDS

Conductor size—AWG or MCM	Ohms/1,000 feet at 25° C.	Maximum allowable fuse rating (amperes)	Maximum allowable circuit breaker instantaneous setting (amperes) ¹
14	2.62	20	50
12	1.85	30	75
10	1.04	40	150
8	.654	80	200
6	.410	100	300
4	.259	200	500
3	.205	250	600
2	.162	300	800
1	.129	375	1,000
1/0	.102	500	1,250
2/0	.081		1,500
3/0	.064		2,000
4/0	.051		2,500
250	.043		2,500
300	.036		2,500
350	.031		2,500
400	.027		2,500
450	.024		2,500
500	.022		2,500

¹ Higher circuit-breaker settings may be permitted for special applications when justified.

TABLE 9.—SPECIFICATIONS FOR PORTABLE CABLES LONGER THAN 500 FEET¹

Conductor size—AWG or MCM	Maximum allowable length (feet)	Normal ampacity at 60° C. copper temperature (40° C. ambient)	Resistance at 60° C. copper temperature (ohms)
6	550	50	0.512
4	600	70	.353
3	650	80	.302
2	700	95	.258
1	750	110	.220
1/0	800	130	.185
2/0	850	150	.157
3/0	900	175	.130
4/0	1,000	200	.116
250	1,000	220	.098
300	1,000	240	.082
350	1,000	260	.070
400	1,000	280	.061
450	1,000	300	.054
500	1,000	320	.050

¹ Fuses shall not be used for short-circuit protection of these cables. Circuit breakers shall be used with the instantaneous trip settings not to exceed the values given in Table 8.

APPENDIX II

LIST OF FIGURES

[Illustrations not printed in Record]

- | Figure No. | Title |
|------------|-------------------------------------------------------------------------------------------------------------------------|
| 1 | Typical layout drawing of a machine. |
| 2 | Sample bill of material (to accompany layout drawing shown on figure 1). |
| 3 | Material to be included with the operating instructions on or with the wiring diagram submitted to each customer. |
| 4 | Sample factory inspection form. |
| 5 | Typical plane joint. |
| 6 | Typical combination joint. |
| 7 | Typical threaded joint. |
| 8 | Typical threaded straight stuffing box and packing gland lead entrance with provision for hose conduit. |
| 9 | Typical slip-fit straight type and angle-type stuffing box and packing gland lead entrance. |
| 10 | Typical slip-fit angle-type stuffing box and packing gland lead entrance and typical plug for space lead entrance hole. |

FIGURE 2.—SAMPLE BILL OF MATERIAL

B. of M. No. -----	Date -----
Revision -----	Date -----
1. -----	-----
2. -----	-----
3. -----	-----
4. -----	-----
5. -----	-----

Bill of Material (Electrical)

(Manufacturing Company) -----

Model: ----- (Unit Name)

Approval 2G-----

Motor: ----- (Manufacturing Company)

Frame -----

Hp., ----- Volts, ----- Ph.,

Cy., ----- R.P.M.

X/P----- (Date)

----- Extension

(Date)

Starter: -----

(Manufacturing Company)

Model -----

Hp., ----- Volts.

X/P----- (Date)

----- Extension

(Date)

Cable—Motor to Starter: -----

Cond. No. -----

O.D., -----' Long

Hose—Motor to Start Cable: -----

" ID., -----' O.D., -----' Long

Portable (Trailing) Cable—

Type: -----

Cond. No. -----

O.D., -----' Long

Hose—For Portable Cable: -----

" ID., -----' O.D., -----' Long

Hose Clamps—

2 for Motor-Starter Hose conduit -----' D

1 for Portable Cable Hose conduct -----' D*

*Only when short length of hose is used.

Trolley Tap—

(Manufacturing Company)

Model ----- with

-----ampere fuse.

Rail Clamps, 2.

1 Ground Clamp, Cat. No. -----

(Manufacturing Company)

1 Return Power Conductor, Cat. No. -----

(Manufacturing Company)

or—as Optional

Plug on outby end of potable cable for insertion into receptacle on distribution box or equivalent with short-circuit protective device set at ----- amperes.

Static-free Belt

Model -----

Style -----

Catalog No. -----

(Manufacturing Company)

Guard for Belt—

Material -----

Overall Dimensions -----' Long x -----' Wide x -----' High

NOTE: The foregoing is intended as a guide. Additional electrical components used shall be completely identified.

FIGURE 3.—MATERIAL TO BE INCLUDED WITH THE OPERATING INSTRUCTIONS—ON OR WITH THE WIRING DIAGRAM SUBMITTED TO EACH CUSTOMER

(Sometimes referred to as "Caution Statement")

CAUTION

To retain "permissibility" of this equipment the following conditions shall be satisfied:

1. *General safety.* Frequent inspection shall be made. All electrical parts, including the portable cable and wiring, shall be kept in a safe condition. There shall be no openings into the casings of the electrical parts. A permissible distribution box shall be used for connection to the power circuit unless connection is made in fresh intake air. To maintain the overload protection on direct-current machines, the ungrounded conductor of the portable cable shall be connected to the proper terminal. The machine frame shall

be effectively grounded. The power wires shall not be used for grounding except in conjunction with diode(s) or equivalent. The operating voltage should match the voltage rating of the motor(s).

2. *Servicing.* Explosion-proof enclosures shall be restored to the state of original safety with respect to all flame arresting paths, lead entrances, etc., following disassembly for repair or rebuilding, whether by the owner or an independent shop.

3. *Fastenings.* All bolts, nuts, screws, and other means of fastening, and also threaded covers, shall be in place, properly tightened and secured.

4. *Renewals and repairs.* Inspections, repairs, or renewals of electrical parts shall not be made unless the portable cable is disconnected from the circuit furnishing power, and the cable shall not be connected again until all parts are properly reassembled. Special care shall be taken in making renewals or repairs. Leave no parts off. Use replacement parts exactly like those furnished by the manufacturer. When any lead entrance is disturbed, the original leads or exact duplicates thereof shall be used and stuffing boxes shall be repacked in the approved manner.

5. *Cable requirements.* A flame-resistant portable cable bearing a Bureau assigned identification number, adequately protected by an automatic circuit-interrupting device shall be used. Special care shall be taken in handling the cable to guard against mechanical injury and wear. Splices in portable cables shall be made in a workmanlike manner, mechanically strong, and well insulated. Not more than five temporary splices are permitted in a portable cable regardless of length. Connections and wiring to the outby end of the cable shall be in accordance with recognized standards of safety.

FIGURE 4.—SAMPLE FACTORY INSPECTION FORM

Inspector -----	Date -----
MACHINE	
Designation: -----	Serial No. -----
MOTOR	
Manufacturer: -----	Type: -----
Serial No.: -----	Hp. ----- F.L. Speed: ----- Volts: ----- Amps: -----
Winding: ----- X/P No. ----- (or parts list designation).	STARTER
Manufacturer: -----	Serial No. ----- Type: -----
Hp. ----- Volts: ----- X/P No. ----- (or parts list designation).	Short-circuit protection ----- amps.
Overload-current protection ----- amps.	PORTABLE CABLE
Manufacturer: -----	Type: ----- Conductors: -----
Length: ----- O.D. ----- BM No. -----	Is all wiring around machine adequately protected from mechanical damage? -----
By hose conduit ----- Troughs -----	Metal tubing ----- Other -----
By removal of all sharp corners or edges? -----	Is wiring separated from hydraulic components? -----
Is an adequate insulated strain clamp provided for the portable cable? -----	Are all packing glands properly packed so that 1/8-inch clearance remains between packing nut and stuffing box? -----
Are lockwashers (or equivalent) provided for all explosion-proof enclosure fastenings? -----	Are all plane joints securely fastened so that an 0.005-inch feeler gage cannot be inserted? -----
Are all threaded covers secured? -----	How? -----

Are all electrical connections secure -----
and properly insulated where necessary?--

NOTE: Add appropriate material for each explosion-proof enclosure when more than a motor and starter are on a machine.

Mr. WILLIAMS of New Jersey. This procedure was adopted years ago without the need for considering the special problem it might create for the small mine operators. It is clear, and I readily admit, that if this is the procedure which must be followed, the extremely high cost estimates and time estimates, although still greatly inflated, are a little closer to reality.

As the committee has learned, however, many small mine operators, using traditional American ingenuity, have manufactured homemade mining equipment. These pieces of equipment may differ from each other in each of the 3,000 small mines. There obviously is no prototype which can be sent to Pittsburgh for inspection. Nor could any small mine operator afford the expense and delay that would be necessitated by such a procedure.

The key question, therefore, was—How do we solve this problem of logistics? The small mine operator could convert his homemade equipment to assure its safe operation with relatively little cost, if the Department could bring its approval system to the small mine; if, so to speak, Pittsburgh could be moved to Kentucky.

The bill, therefore, provides the authority to the Secretary of the Interior to adopt a field approval system, under which the equipment used by small mine operators can be tested at the mine for ignition prevention and other safety characteristics. This relatively simple solution will not only permit the conversion of equipment in a much shorter period of time than originally estimated, but at a clearly reduced cost to the small mine operator. Yet, it will not lower the safety standards; it will not sacrifice the miners' safety to economic considerations.

As far as the economic considerations are concerned, the Department of Interior has conducted a nationwide survey of 10 small nongassy mines in each of nine States including Kentucky, Virginia, West Virginia, Tennessee, Illinois, Ohio, Pennsylvania, Colorado, and Utah. On the basis of this survey, and taking into account the field approval system authorized by the bill, the Department of Interior has concluded that the costs to the Nation's small nongassy mine operators will be no more than \$30 million, perhaps as low as \$21 million. This is approximately \$10,000 per mine, as opposed to the estimate of \$260,000 per small mine originally suggested to the committee by opponents of the committee's recommendation. And this figure includes the cost of upgrading or replacing the small equipment which the distinguished Senator from Kentucky agrees should be made explosion proof.

The committee recognizes that economic difficulties may still arise and that some already marginal small-mine operators may choose to close their mines. To assist the small-mine operator, the committee has included two important financial assistance programs which it

believes will ease the economics involved in making the small mine a safe place to work. These two provisions authorize granting and guaranteeing of long-term low-interest loans for terms ranging up to 20 to 25 years, under both the Small Business Act and the Public Works and Economic Development Act.

LEGISLATIVE PROGRAM

Mr. GRIFFIN, Mr. President, will the Senator from New Jersey yield briefly?

Mr. WILLIAMS of New Jersey. I yield.

Mr. GRIFFIN, Mr. President, I should like to direct an inquiry to the acting majority leader as to whether he could inform us concerning the legislative activity for the remainder of the day and, hopefully, for the remainder of the week.

Mr. KENNEDY, Mr. President, it is the hope of the leadership that during the remainder of the day the supporters of the Cooper amendment and the Senators from West Virginia, who are deeply interested, and many other Senators will be able to develop some common language or some modification of this amendment. That will be the first order of business for consideration on tomorrow.

Actually, there are other amendments to the pending bill. The distinguished Senator from Montana (Mr. METCALF) has one. I have a short amendment also.

I would hope that during the remainder of the day the debate on those amendments could be carried on. There might be votes on those amendments. Perhaps there will not be, however. We hope that other amendments can be resolved and disposed of this evening so that the remaining amendment, according to the understanding of the leadership, and the sponsors of the pending bill as well, would be the Cooper amendment or a modification of that amendment.

The Senate will come in at 11 o'clock tomorrow morning. On tomorrow the Senate will consider the civil service retirement bill which, hopefully, will be completed on tomorrow or on Friday. After that, on Friday, the District of Columbia revenue bill will be considered.

On Monday, S. 7, the water pollution bill, and a reconsideration of the Peace Corps measure will be high on the agenda.

That will be the program for the remainder of the week and the early part of next week.

It is the hope of the leadership that any other amendments that are to be offered to the pending bill will be considered tonight and will be voted on so that we can get final action and passage of the pending bill at an early hour tomorrow.

Mr. GRIFFIN. Can Senators have reasonable assurance that S. 7, the water pollution bill, will not be taken up until Monday?

Mr. KENNEDY, Mr. President, I believe that the civil service retirement bill and the District of Columbia revenue bill will constitute a full program for the remainder of the week. I understand from those interested in the civil service retirement bill that there will not be extended debate. However, the District of Columbia revenue bill is another matter

entirely. Our best judgment at this time is that S. 7, the water pollution bill, will be considered on Monday.

Mr. METCALF, Mr. President, will the Senator yield?

Mr. KENNEDY, I yield.

Mr. METCALF, Mr. President, I have an amendment to offer to the pending bill that, I believe, has been worked out so that we can in a very short time agree to a modification of the amendment that will suit everyone.

I have a second amendment, however, that I have referred to the distinguished senior Senator from New York who would like to take another look at the amendment and discuss it tomorrow.

It will take a very short time to consider my amendment. However, I would like to put off offering my second amendment until tomorrow and offer at this time a modification of my first amendment that I believe will be acceptable to everyone.

Mr. KENNEDY, Mr. President, with that understanding and from the information obtained during my conversations with the Senator in charge of the bill, the Senator from Vermont has a short amendment to offer and the Senator from New York has an amendment.

We are hopeful that we can set aside temporarily this afternoon the pending amendment and consider and dispose of other amendments as best we can.

Mr. JAVITS, Mr. President, the Senator refers to clearing up noncontroversial amendments.

Mr. KENNEDY, We hope that no controversy will be involved.

Mr. METCALF, Mr. President, I point out to the distinguished acting majority leader, the Senator from Massachusetts, and the Senator from New York, that my amendment is very brief. It should only take a few minutes to dispose of the matter one way or the other.

Mr. GRIFFIN, Mr. President, will the Senator yield?

Mr. METCALF, I yield.

Mr. GRIFFIN, Mr. President, if I may have the attention of the acting majority leader, I take it that it would have to be understood that while the acting majority leader is hopeful there will be no further rollcall votes today, there is no guarantee of that.

Mr. KENNEDY, The Senator is correct.

FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969

The Senate resumed the consideration of the bill (S. 2917) to improve the health and safety conditions of persons working in the coal mining industry of the United States.

Mr. METCALF, Mr. President, I ask unanimous consent that the pending amendment be set aside temporarily.

Mr. COOPER, Mr. President, reserving the right to object, may I see the amendment?

The PRESIDING OFFICER. Is there objection to the request of the Senator from Montana?

Mr. COOPER, Mr. President, I have no objection.

The PRESIDING OFFICER. Without objection, it is so ordered.

AMENDMENT NO. 177

Mr. METCALF. Mr. President, I call up my amendment No. 177 as modified.

The PRESIDING OFFICER. The amendment, as modified, will be stated.

The ASSISTANT LEGISLATIVE CLERK. The Senator from Montana (Mr. METCALF) proposes an amendment:

On page 78, between lines 3 and 4, insert the following:

"(1) Where the Secretary finds that sanitary conditions so required, sanitary toilet facilities shall be provided in all underground mines. Such facilities will be located at places designated by the Secretary or his authorized representative."

Mr. METCALF. Mr. President, the provision of sanitary facilities in a mine is just as important as any other safety requirement. I believe it is a national disgrace that we have not yet provided for the provision of sanitary facilities in our coal mines. We have provided for them on big construction operations and in the nonferrous mines. However, we have not yet provided that they be required in coal mines.

Mr. BYRD of West Virginia. Mr. President, may we have order?

The PRESIDING OFFICER. The Senate will be in order.

The Senator may proceed.

Mr. METCALF. Mr. President, the only provision contained in my amendment as modified is that where the Secretary finds it is necessary to have such facilities in a mine, they shall be provided.

I agree with some of my colleagues that the amendment as originally written made it an absolute mandatory requirement that the Secretary or his representative designate a place for the location of the sanitary facilities.

As modified, the amendment provides that in a small mine, where there is not a great distance to be traveled, or where not many persons are employed, the Secretary shall have some discretion to decide where facilities shall be located. In granting this discretion, we still provide that in mines that employ many employees, or where a great distance must be traveled, these facilities will have to be provided.

In a discussion among Senators to agree upon language, we have decided to provide a little flexibility in the amendment and, at the same time, to provide this very much needed requirement in the law.

Mr. WILLIAMS of New Jersey. Mr. President, the amendment has been carefully considered by me and by other members of the committee. As it was understood initially, the amendment would have required facilities to be provided in every mine. But after thinking that provision through, it has been concluded that there might be situations where that could not be accomplished.

Mr. METCALF. Or that it would be better to provide facilities outside the mine.

Mr. WILLIAMS of New Jersey. Yes. For these reasons of practicality, the amendment now provides discretionary authority to the Secretary. Will the Senator from Montana again read the words relating to discretion?

Mr. METCALF. Yes—"where sanitary considerations so require."

So the Secretary would have complete authority and complete discretion to determine whether the facilities should be inside or outside the mine, or whether they should be required at all.

Mr. WILLIAMS of New Jersey. Speaking for myself, and for the committee, as well, I may say that it is felt that this provision will make a significant contribution to the objective of the bill, which is to improve the working conditions in the coal mines of the country. We are glad to make this addition by accepting the amendment.

Mr. METCALF. I thank the Senator from New Jersey.

The PRESIDING OFFICER. The question is on agreeing to the amendment, as modified, of the Senator from Montana.

The amendment, as modified, was agreed to.

Mr. JAVITS. Mr. President, I make a unanimous-consent request similar to the one just granted in relation to another amendment and which I gather is noncontroversial.

The PRESIDING OFFICER. Without objection, it is so ordered. The amendment will be stated.

The assistant legislative clerk read as follows:

On page 9, between lines 14 and 15 insert: "(3) Within 6 months after the date of enactment the Surgeon General shall establish, and the Secretary shall publish, as provided in subsection 105 (c) of this title proposed mandatory standards establishing maximum noise exposure levels for all coal mines."

Mr. JAVITS. Mr. President, in coal mines, just as in any other working place reverberations and other noise may cause problems. This is an effort to meet those problems in a comprehensive coal mine health and safety bill, and hence its introduction here. Under this amendment, proposed standards for noise levels would have to be promulgated within 6 months after enactment. I ask for favorable action.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from New York.

The amendment was agreed to.

EXECUTIVE SESSION

Mr. SCOTT. Mr. President, I ask unanimous consent that the Senate go into executive session to consider two nominations reported earlier today.

The PRESIDING OFFICER. Is there objection?

There being no objection, the Senate proceeded to the consideration of executive business.

The PRESIDING OFFICER. The nominations will be stated.

U.S. CIRCUIT COURT

The assistant legislative clerk read the nomination of Arlen M. Adams, of Pennsylvania, to be U.S. circuit judge, third circuit.

The PRESIDING OFFICER. Without objection, the nomination is considered and confirmed.

FOUR CORNERS REGIONAL COMMISSION

The assistant legislative clerk read the nomination of L. Ralph Mecham, of Utah, to be deputy cochairman of the Four Corners Regional Commission.

The PRESIDING OFFICER. Without objection, the nomination is considered and confirmed.

Mr. SCOTT. Mr. President, I ask unanimous consent that the President be immediately notified of the confirmation of these nominations.

The PRESIDING OFFICER. Without objection, it is so ordered.

LEGISLATIVE SESSION

Mr. SCOTT. Mr. President, I move that the Senate resume the consideration of legislative business.

The motion was agreed to, and the Senate resumed the consideration of legislative business.

FEDERAL WATER POLLUTION CONTROL ACT—AMENDMENTS

AMENDMENT NO. 220

Mr. JAVITS. Mr. President, I submit an amendment to S.7, a bill, shortly to be laid before the Senate, to amend the Federal Water Pollution Control Act, as amended.

This amendment is designed to allow the Secretary of Interior to make available for reimbursement payments to States and local governments, those unobligated construction grant funds which the Secretary now is entitled to reallocate to States merely having approved projects.

When the reimbursement provisions were included in the law in 1966, it appeared that a number of States—New York, for one—and municipalities, having desperate need for sewage treatment plant construction, would be in a position to commit their own funds if there could be some reassurance that the Federal Government would make an effort to reimburse them. It was recognized that these States and municipalities would have to assume a certain risk that Federal funds would be limited and that little, if any, reimbursement would be forthcoming. It was likewise recognized, however, that such a program was an excellent method of accelerating the necessary construction, and accordingly, the Federal Government would make reasonable efforts to assist those governments which in fact did assume the risk.

This amendment is an attempt to provide those States and municipalities that have used funds in lieu of Federal construction grant funds reimbursement to which they are legally entitled under the Federal Water Pollution Control Act, as amended, and which they most rightfully deserve. Like the amendment offered by the Senator from Maryland, this amendment would provide some reimbursement to those States that have committed their own funds to "prefinance" a portion of the Federal Government's share of water pollution control projects. The amendment goes further than that of Senator TYDINGS, however, in that it of-

fers the same assistance to municipalities that have undertaken similar risks.

Presently, there are seven States that have in fact prefinanced Federal grant funds for the local communities. A number of the communities within those States have contributed funds similarly. It is of further interest to know that the communities in 25 other States also have used their own funds in lieu of Federal grant funds, and they, too, are entitled to reimbursement.

Mr. President, I ask unanimous consent that a chart prepared for me by the Federal Water Pollution Control Administration indicating the sum of the State and community funds advanced in lieu of Federal funds for each State be printed in the RECORD at this point.

There being no objection, the chart was ordered to be printed in the RECORD, as follows:

Grant funds prefinanced by States and communities, August 31, 1969

Total	\$694,496,740
Alabama	6,308,000
Alaska	
Arizona	
Arkansas	
California	110,400
Colorado	149,442
Connecticut	60,900,000
Delaware	895,600
District of Columbia	2,917,510
Florida	1,835,004
Georgia	16,106,084
Hawaii	
Idaho	
Illinois	21,013,742
Indiana	3,318,871
Iowa	906,798
Kansas	111,984
Kentucky	
Louisiana	
Maine	3,500,000
Maryland	52,965,406
Massachusetts	8,500,000
Michigan	53,389,168
Minnesota	
Mississippi	
Missouri	14,051,977
Montana	
Nebraska	
Nevada	
New Hampshire	2,950,480
New Jersey	51,724,476
New Mexico	
New York	308,612,970
North Carolina	706,780
North Dakota	
Ohio	5,151,900
Oklahoma	
Oregon	2,913,270
Pennsylvania	35,133,010
Rhode Island	1,103,000
South Carolina	7,358,530
South Dakota	
Tennessee	3,031,136
Texas	5,007,846
Utah	
Vermont	877,000
Virginia	2,463,220
Washington	8,149,550
West Virginia	
Wisconsin	12,533,786
Wyoming	
Guam	
Puerto Rico	
Virgin Islands	

Mr. JAVITS. It should be made clear that these figures represent eligible reimbursable funds for States and communities through August 31, 1969, and as more communities proceed on construc-

tion projects with less than eligible Federal assistance, these figures should increase.

The Federal Water Pollution Control Administration informs me that should \$214 million be appropriated for construction grant purposes, an estimated \$10 million would remain unused and could be returned to the Secretary for reimbursement purposes. Should \$600 million be appropriated, an estimated \$100 million would be returned to the Secretary. In proportion to the need and the actual reimbursable amounts committed by the States and municipalities, these figures are small. Nevertheless, by incorporating my amendment into this bill, we will begin to recognize our obligation to those States and municipalities that have taken the risk of using their own funds and by expanding such a concept, we might further encourage other States and communities to take that risk.

These funds would be distributed according to regulations promulgated by the Secretary of the Interior. A suggested distribution, based upon a ratio of the amount prefinanced by each State—and community—to the total amount prefinanced by all such States—and communities—is presented on this second chart, which I ask unanimous consent to have printed in the RECORD at this point:

There being no objection, the chart was ordered to be printed in the RECORD, as follows:

Under the proposed plan, funds remaining unobligated six months after the end of the fiscal year for which approved will be reallocated to those States and communities which have prefinanced part of the Federal share of projects in the State. Such reallocation will be made on the basis which the amount prefinanced by each State and community bears to the total amount prefinanced by all such States and communities.

BASIS OF AMOUNT PREFINANCED

States	Percent	Share	Share
Alabama	0.91	\$91,000	\$910,000
California	.02	2,000	20,000
Colorado	.02	2,000	20,000
Connecticut	8.77	877,000	877,000
Delaware	.13	13,000	130,000
District of Columbia	.42	42,000	420,000
Florida	.26	26,000	260,000
Georgia	2.32	232,000	2,320,000
Illinois	3.02	302,000	3,020,000
Indiana	.48	48,000	480,000
Iowa	.13	13,000	130,000
Kansas	.02	2,000	20,000
Maine	.50	50,000	500,000
Maryland	7.63	763,000	7,630,000
Massachusetts	1.22	122,000	1,220,000
Michigan	7.69	769,000	7,690,000
Missouri	2.02	202,000	2,020,000
New Hampshire	.43	43,000	430,000
New Jersey	7.45	745,000	7,450,000
New York	44.43	4,443,000	44,430,000
North Carolina	.10	10,000	100,000
Ohio	.74	74,000	740,000
Oregon	.42	42,000	420,000
Pennsylvania	5.06	506,000	5,060,000
Rhode Island	.16	16,000	160,000
South Carolina	1.06	106,000	1,060,000
Tennessee	.44	44,000	440,000
Texas	.72	72,000	720,000
Vermont	.10	10,000	100,000
Virginia	.35	35,000	350,000
Washington	1.17	117,000	1,170,000
Wisconsin	1.81	181,000	1,810,000
Total		10,000,000	100,000,000

Mr. JAVITS. I ask unanimous consent that the amendment be printed in the RECORD at this point.

The PRESIDING OFFICER. The amendment will be received, printed, and

will lie on the table; and, without objection, the amendment will be printed in the RECORD.

The amendment (No. 220) was received, ordered to be printed and lie on the table; and, without objection, was ordered to be printed in the RECORD, as follows:

AMENDMENT No. 220

On page 73, between lines 15 and 16, insert the following:

"Sec. 106. Effective for fiscal years beginning after June 30, 1969, section 8(c) of the Federal Water Pollution Control Act is amended in the fourth sentence by striking out 'to States having projects approved under this section for which grants have not been made because of lack of funds' and inserting in lieu thereof 'for the purpose of making reimbursements pursuant to the sixth and seventh sentences of this subsection'."

On page 73, lines 16, 19, and 23, redesignate sections 106, 107, and 108, as sections 107, 108, and 109, respectively.

S. 2982—INTRODUCTION OF THE CHILD NUTRITION ACT OF 1969

Mr. JAVITS. Mr. President, I introduce, for appropriate reference, the Child Nutrition Act of 1969, and I ask unanimous consent that my testimony before the Senate Agriculture Committee this morning, which explains the bill and its provisions, be printed in the RECORD at this point.

There being no objection, the testimony was ordered to be printed in the RECORD, as follows:

TESTIMONY OF SENATOR JAVITS

Mr. Chairman, last Wednesday, the Senate passed a comprehensive and far-reaching food stamp bill. As one of the original nine sponsors of the substitute bill which the Senate passed, I am both pleased and gratified with this forward-looking action. Even though the food stamp bill will go a long way toward fighting hunger and malnutrition in this nation, we still must move forward on the other fronts of food assistance if we are to completely eliminate this problem from our midst.

It is for this reason that I will introduce today the Child Nutrition Act of 1969, a bill designed to bring more food and adequate nutrition to millions more children who live in poverty. Briefly, my bill would do the following:

(1) Establish national eligibility standards which require the furnishing of free or reduced price meals to any child who is a member of any household which, (A) is eligible to participate in any Federal food assistance program, or (B) has an annual income equivalent to or less than \$4,000 for a household of four persons;

(2) Give the Secretary of Health, Education and Welfare a consultative-evaluative role in child feeding programs;

(3) Require uniform standards and procedures for the allocation of funds to schools and school districts from the states under child feeding programs to insure maximum participation of needy children in such programs;

(4) Require that there be no overt identification of children, who receive free or reduced price meals under any federal program as well as require that needy children receive priority in receiving special milk;

(5) Require an evaluation of the effectiveness of federal child feeding programs in meeting the nutritional and health needs of children, providing meals under school and non-school feeding programs (e.g., Vanik program, Headstart and day care center food programs as well as the school lunch and

breakfast programs), and a report of findings and recommendations for improving such programs to the President by January 20th of each year;

(6) Direct the Secretary of Agriculture to formulate and carry out demonstration projects with private food service concerns for the preparation and provision of nutritious meals in schools which lack or have inadequate facilities for food programs in rural and urban poverty areas as well as in pre-school and non-school feeding programs. It also directs the Secretary to furnish milk and other agriculture commodities in carrying out such projects;

(7) Apply to lunches, breakfasts and non-school food programs rather than just school lunches;

(8) Provide for work training programs whereby low-income individuals would be trained to administer and supervise child feeding programs.

Before I outline in detail my reasons for introducing this bill, I would like to commend my colleague from Georgia, Mr. Talmadge, for the progressive provisions of his school lunch bill, S. 2548, which is now before this Committee. I feel that in addition there are other aspects of our child feeding programs that should have attention and it is for this reason that I shall introduce the Child Nutrition Act of 1969 and would consider it the basis for amendments of Senator Talmadge's bill.

Testimony before the Select Committee on Nutrition and Human Needs, on which I serve as the ranking Republican, has pointed out the need for stronger leadership—both from Congress and the Department of Agriculture—in establishing eligibility standards for children who receive free and reduced-price meals, as well as leadership to assure maximum participation of needy children in all child feeding programs. Therefore, this bill directs the Secretary of Agriculture to consult with the Secretary of Health, Education and Welfare to establish national eligibility standards for receipt of free or reduced-price meals in our child feeding programs, as well as uniform standards to states to use in distributing funds to schools and school districts for such programs to assure maximum participation of needy children.

The Senate last week expressed its desire to have households in which annual income is less than \$4,000 per year eligible for receipt of food stamps. It is only logical that children from such households should be automatically eligible to receive free or reduced price meals under Federal child feeding programs. Even more logical is that children from households which receive any form of Federal food assistance should also be eligible to receive free or reduced price meals. If a family is in enough need to receive one form of food assistance, then children from that family are in enough need to receive free or reduced price meals in our child feeding programs.

I am pleased that Senator McGovern, Chairman of the Select Committee on Nutrition and Human Needs, endorsed the principle of national eligibility standards for free and reduced price lunches in testimony before this Committee yesterday. I advocated establishing standards for such programs several weeks ago in my omnibus hunger bill, and I am gratified that Senator McGovern is in basic agreement with this principle. However, I think we must go further than just establishing such standards for free and reduced price lunches—we must also apply those same standards to the breakfast programs, pre-school and non-school food programs.

It has been estimated that there are between six to eight million children below the poverty level who should be receiving free or reduced-price meals, but only an estimated 2.5 million children in this cate-

gory are being reached. These figures do not include children from near-poor families who could also benefit from such meals. Much of this lack of participation is due to the problem of local administrators not clarifying sufficiently just who is eligible for such programs. If we establish clear-cut standards, then local school officials will have the direction and leadership necessary to improve program participation and serve the nutritional needs of more children. *In establishing uniform procedures for the distribution of funds, the Secretary of Agriculture should strongly consider allocating funds from states to groups of school districts rather than to individual districts.* I feel that such a procedure would allow more children to be reached and would prevent the situation of one school district receiving funds for needy children and another school district, often only a few miles away, receiving no funds. This would also simplify book-keeping and reduce some of the complexities of state and local administration of such programs.

This bill also gives the Secretary of Health, Education and Welfare an evaluative and consultative role in child feeding programs. I have often stated that the Department of Health, Education and Welfare, which now has the responsibility for administering Head Start and many day-care center programs, should be brought into all of our child feeding programs. Secretary Finch has stated that we must be concerned with the child from the cradle through his school years. I feel that it is important for the Secretary of HEW to have a role to play in the development and evaluation of our child feeding programs.

This bill also requires that needy children receive priority in the distribution of special milk under the Child Nutrition Act of 1966. All children must have milk, and I believe that we should provide it first to those who need it most—malnourished, needy youngsters.

Also, this bill requires that recipients of free or reduced price meals under child feeding programs shall not be identified in any overt manner. It is cruel to have a child openly identified as being poor and needy to his fellow classmates because of published lists, tickets, separate lines or any of the various devices which are common in many parts of this nation. For too long children have been embarrassed and many have refused to participate in child feeding programs—especially the school lunch program—because of such discriminatory practices. The time has come for this to end.

This bill also directs the Secretary of Agriculture to utilize the services of private food service concerns to bring food to needy children. It is generally accepted that the American private food market is the most effective food distribution system in the world. I feel that we should take steps now to speed up and encourage private food service concerns and processors to bring their expertise in food distribution, management and services into our school-feeding programs. The pace has been extremely slow and it is the intention of this bill to greatly hasten and expand such efforts.

This bill would provide \$25,000,000 for the Secretary of Agriculture to carry out demonstration programs with private food companies for the supply, preparation and delivery of food in schools which have limited facilities or none at all for meal preparation and which are located in poverty areas. Every effort should be made to bring the lunch and breakfast programs into schools which now are without facilities. I feel that this approach could be utilized very effectively through the Central and Satellite Kitchen concept, as well as the forward-looking concept of the development of large-scale food commissaries serving many schools, school

districts or even cities and I hope that we can move in these directions soon.

Already many schools are utilizing private food technology in their food programs and are proving to be very successful. In my own city of New York, the use of frozen convenience foods has proven to be very beneficial, both to the school system and the students. It is predicted that, eventually, all of the city's 400,000 elementary, junior and senior high school students will be offered such meals.

Finally, it is very important that we develop programs which will help the poor break the shackles of poverty so that they may be able to earn their own way and provide their families with the food and nutritional needs that are necessary to sustain a healthy life. It is for this reason that my bill includes a provision for work-training programs for low-income persons so that they might be trained to administer and supervise in child-feeding programs. We have seen how effective our nutrition aides have been in helping poor families achieve proper nutritional meals. *I propose that we train people to become dietitian aides* so that they might eventually receive the training to enable them to enter the field as professionals. I am quite certain that organizations such as the American Dietetic Association would be willing to cooperate in such an endeavor, as well as local school districts.

I deeply believe that we can end hunger in America and I am convinced that this bill, like the historic food stamp bill passed by the Senate last week, will go a long way toward meeting that objective.

Mr. JAVITS I also ask unanimous consent that the text of the bill be printed in the RECORD.

The PRESIDING OFFICER. The bill will be received and appropriately referred; and, without objection, the bill will be printed in the RECORD.

The bill (S. 2982), to provide for the establishment under all Federal child feeding programs eligibility standards which require that free or reduced price meals be served to certain children, and for other purposes, introduced by Mr. JAVITS (for himself and Mr. GOODELL), was received, read twice by its title, referred to the Committee on Agriculture and Forestry, and ordered to be printed in the RECORD, as follows:

S. 2982

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Child Nutrition Act of 1969".

AMENDMENTS TO NATIONAL SCHOOL LUNCH ACT AND CHILD NUTRITION ACT OF 1966

SEC. 2. (a) Section 3 of the National School Lunch Act is amended by inserting immediately after "Secretary of Agriculture" the following: "in consultation with the Secretary of Health, Education, and Welfare".

(b) Section 15e of the Child Nutrition Act of 1966 is amended by inserting immediately after "Secretary of Agriculture" the following: "in consultation with the Secretary of Health, Education, and Welfare".

(c) Section 3 of the Child Nutrition Act of 1966 is amended by adding at the end thereof a new sentence as follows: "The Secretary of Agriculture shall, after consultation with the Secretary of Health, Education, and Welfare, impose such requirements as he deems necessary under this Act to insure that priority is given to the furnishing of milk to children of low-income families."

DEMONSTRATION PROJECTS

SEC. 3. (a) The Secretary of Agriculture is authorized, after consultation with the Sec-

retary of Health, Education, and Welfare, to formulate and carry out demonstration projects under which he shall contract with private food service concerns for the preparation of nutritious meals and contract with private food processors for the provision of such meals in schools and school districts which lack or have inadequate food preparation facilities for food programs. Such projects shall be carried out in schools which are located in rural or urban areas having a high concentration of low-income households. Such projects may also be carried out for the benefit of children participating in pre-school and nonschool programs if the children participating in such programs are predominantly children of low-income households.

(b) Such projects shall be placed in operation not later than six months after the date of enactment of this Act and shall be administered, to the extent practicable, in conjunction with any nutrition education program carried out under any other Act.

(c) The Secretary of Agriculture shall consult with and cooperate with local authorities in carrying out this section.

(d) The Secretary of Agriculture shall furnish milk and other agricultural commodities to the maximum extent possible in carrying out this section.

(e) There is authorized to be appropriated the sum of \$25,000,000 for the fiscal year ending June 30, 1970 and such sums as may be necessary for each of the four succeeding fiscal years to carry out the provisions of this section.

STANDARDS

SEC. 4. (a) The Secretary of Agriculture, after consultation with the Secretary of Health, Education, and Welfare, shall—

(1) establish for all Federal child feeding programs eligibility standards which require the furnishing of free or reduced price meals to any child who is a member of a household which (A) is eligible to participate in any Federal food assistance program, or (B) has an annual income equivalent to or less than an annual income of \$4,000 for a household of four persons;

(2) establish such uniform standards and procedures as he deems necessary for the allocation to schools and school districts of Federal funds made available to States under child feeding programs to assure maximum participation by schoolchildren of low-income households in such programs; and

(3) develop curricula, training programs, and materials relating to diet and nutrition to be used in the training and education of persons engaged in the operation of school feeding programs for children.

(b) No overt identification shall be made of any child who is furnished meals at a free or reduced price under any Federally assisted program.

EVALUATION

SEC. 5. The Secretary of Health, Education, and Welfare, in consultation with the Secretary of Agriculture, shall evaluate the adequacy and effectiveness of school feeding programs administered by the Department of Agriculture, the Department of Health, Education, and Welfare, and other departments and agencies of the Government in meeting the nutritional and health needs of school children, pre-school children, and children provided with food under nonschool programs, and shall report his findings and recommendations for improving such programs to the President not later than January 20 of each year, beginning with the calendar year 1970. The Secretary shall, in evaluating the adequacy and effectiveness of such programs, determine the extent to which such programs provide nutrition assistance and education to children of low-income households.

WORK TRAINING PROGRAMS

SEC. 6. (a) The Secretary of Agriculture is authorized after consultation with the Secretary of Health, Education, and Welfare, to make grants to or enter into contracts and agreements with State and local school agencies for the purpose of planning and conducting specialized work training programs designed to prepare individuals of low income status to administer and supervise in the administration of school, pre-school, and nonschool food service programs. In carrying out the provisions of this section, the Secretary shall, to the maximum extent feasible consult and cooperate with other Federal, State, and local departments and agencies of government and with private, profit and nonprofit, organizations and institutions.

(b) To carry out the provisions of this section, there is authorized to be appropriated the sum of \$12,000,000 for the fiscal year ending June 30, 1970, and such sum as may be necessary for each of the four succeeding fiscal years.

ORDER OF BUSINESS

Mr. KENNEDY. Mr. President, I ask unanimous consent that the pending business be laid aside temporarily.

The PRESIDING OFFICER. Without objection, it is so ordered.

DESIGNATION OF "NATIONAL FAMILY HEALTH WEEK"

Mr. KENNEDY. Mr. President, I ask the Chair to lay before the Senate a message from the House of Representatives on Senate Joint Resolution 46.

The PRESIDING OFFICER laid before the Senate the amendment of the House of Representatives to the joint resolution (S.J. Res. 46) to authorize the President to designate the period beginning November 16, 1969, and ending November 22, 1969, as "National Family Health Week", which was to strike out the preamble.

Mr. KENNEDY. Mr. President, I move that the Senate concur in the amendment of the House.

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from Massachusetts.

The motion was agreed to.

THE CALENDAR

Mr. KENNEDY. Mr. President, I ask unanimous consent that the Senate proceed to the consideration of calendar numbers 429 and 430.

The PRESIDING OFFICER. Without objection, it is so ordered.

ESTABLISHMENT OF THE NONVOTING DELEGATE TO THE HOUSE OF REPRESENTATIVES FROM THE DISTRICT OF COLUMBIA, AND AMENDING THE DISTRICT OF COLUMBIA ELECTION ACT

The Senate proceeded to consider the bill (S. 2163) to establish, in the House of Representatives, the office of Delegate from the District of Columbia, to amend the District of Columbia Election Act, and for other purposes.

Mr. KENNEDY. Mr. President, I ask

unanimous consent to have printed in the RECORD an excerpt from the report (No. 91-433), explaining the purposes of the measure.

There being no objection, the excerpt was ordered to be printed in the RECORD, as follows:

PURPOSE OF BILL

The principal purposes of the bill S. 2163 are to provide a sure line of communication or link between the people of the District of Columbia and their Federal legislature, and to grant to District residents some form of immediate congressional representation.

To these ends, S. 2163 would create an elected but nonvoting delegate to the U.S. House of Representatives from the District of Columbia.

In addition, S. 2163 would amend the District of Columbia Election Act of 1955 in certain, less significant ways, reflecting largely experience gained in the District's first school board election in November of 1968.

More specifically, S. 2163 creates the office of congressional delegate from the District of Columbia; the bill then provides that the delegate shall be chosen by the qualified voters of the District, in a partisan, general election, following nomination by a political party by means of a party primary, or, in the alternative, following the submission of a nominating petition signed by 5,000 voters or 2 percent of the total District electorate, whichever is less.

Like other Members of the House of Representatives, the District delegate must be at least 25 years of age at the time of election. He must also have been a continuous resident of the District of Columbia for the 3-year period preceding his election. Unlike other bills providing nonvoting House representation for the District, S. 2163, recommended by the Senate District Committee, does not mandate, for the District's delegate, membership on the Committee on the District of Columbia of the House of Representatives.

The bill S. 2163 makes those technical amendments to the District Election Act and the United States Code which are essential to the selection of the delegate, and to the functioning of his office as created. The bill also, notably, (1) increases from 100 to 200 the number of signatures required on a nominating petition for an election to fill a party office; (2) authorizes the District Board of Elections to provide for the casting of non-absentee ballots in District precincts other than those of the voters' residences; (3) authorizes the board to declare winners in advance of certain elections, where the number of qualified candidates or nominees does not exceed the number of offices to be filled; (4) increases the per diem compensation of board members from \$25 to \$50, but with an annual maximum of \$2,500; and (5) extends from 10 to 30 days the period following an election within which candidates must file financial statements.

NEED FOR LEGISLATION

In providing for the Office of Delegate to the House of Representatives from the District of Columbia, the Senate Committee on the District of Columbia was mindful of, and found persuasive, the statement of the President to the Congress (dated April 28, 1969), which preceded the introduction of S. 2163 on behalf of the administration:

"I also urge Congress to grant voting representation in Congress to the District of Columbia. It should offend the democratic senses of this Nation that the 850,000 citizens of its Capital, comprising a population larger than 11 of its States, have no voice in the Congress.

"I urge that Congress approve, and the States ratify, an amendment to the Constitution granting to the District at least one

representative in the House of Representatives, and such additional representatives in the House as the Congress shall approve, and to provide for the possibility of two Senators.

"Until such an amendment is approved by Congress and ratified by the States, I recommend that Congress enact legislation to provide for a nonvoting House delegate from the District." (Italic as in the original.)

Likewise, this committee has been impressed with the need for an effective spokesman for the District of Columbia—one with access and available in the Congress on a regular basis, a spokesman able to devote himself to matters of legislative import, a true representative, certain, by the fact of his election, of the support of the people of this city.

HISTORY OF LEGISLATION

The Senate Committee on the District of Columbia had pending before it three bills calling for the creation of a nonvoting congressional delegate from the District of Columbia—S. 1972, and S. 1991, updated versions of the home rule and nonvoting delegate measure (S. 118) passed by the Senate in the 89th Congress, first session, and S. 2163, introduced on behalf of the administration.

A public hearing was held by this committee on April 30, 1969, at which time the committee had before it S. 1972, S. 1991, and the message of the President to the Congress of the United States, dated April 28, 1969. That message outlined the substance of the provisions of S. 2163, which was introduced thereafter, on May 13, 1969.

Testimony was received from 31 witnesses, and further statements and communications were submitted for the record. (See the publication, Home Rule, hearing before the Committee on the District of Columbia, U.S. Senate, 91st Cong., first sess. 1969.)

SUMMARY OF BILL

Section 1 provides that the act (presently the bill S. 2163) is entitled "The District of Columbia Delegate Act."

Section 2 provides for representation of the District of Columbia in the U.S. House of Representatives by an elected delegate, to be seated in the House with the right of debate but not of voting.

The delegate is required, at the time of his election and thereafter while in office, to be at least 25 years of age, a qualified elector in the District, a resident of the District for a continuous period of at least the 3 years immediately preceding, and not otherwise a holder of any public office.

The delegate is entitled to the same privileges and made subject to the same restrictions as those enjoyed by and incumbent upon Members of the U.S. House of Representatives.

Section 3 defines the principal terms used in the Delegate Act.

Sections 4, 5, and 6 provide those technical amendments to the District Election Act and the United States Code which are essential to the selection of the delegate, and to the functioning of his office as created. The amendments assure that the status of the delegate is equal to that of U.S. Representatives except as to voting. Also notably, pursuant to section 4, a political party qualifies to conduct a primary election for the nomination of a candidate for the office of delegate, if a candidate of that party received at least 7,500 votes for delegate or Presidential elector in the next preceding election year; nomination for candidacy in a primary election is conditioned upon the submission of a petition signed by at least 2,000 registered adherents of the relevant party; said nominating petition is to be accompanied by a filing fee of \$100; nomination for candidacy in a general election is by means of one such party primary or by petition, except that the

latter petition must be signed by 5,000 registered voters or 2 percent of the total number of registered voters of the District; a person who has been a recent unsuccessful candidate in a party primary cannot be nominated as a candidate in the general election by petition; and runoff elections are to be held, after either primary or general elections, if no candidate receives 40 percent of the total votes cast in the election for delegate nominee or for delegate.

Section 7 provides further necessary, technical amendments to the District Election Act. Notably, pursuant to section 7, the number of signatures required on a nominating petition, for an election to fill a party office, is increased from 100 to 200; the District Board of Elections is authorized to provide for casting of nonabsentee ballots in District precincts other than those of the voters' residences; instead of any candidate (as under existing law), any group of qualified electors interested in the outcome of an election would be entitled to apply for credentials authorizing the posting of watchers at the polling places of the District; the Board of Elections is affirmatively authorized to regulate the number and conduct of poll watchers; the board is authorized to declare winners in advance of certain elections, when the number of qualified candidates or nominees does not exceed the number of offices to be filled; the per diem compensation of board members, for time spent in the performance of board business, is increased from \$25 to \$50, but with an annual maximum of \$2,500; and the period following an election within which candidates must file financial statements is extended from 10 to 30 days.

Section 8 renders the delegate act effective upon enactment, and sets the first Tuesday in May 1970 as the date of the first party primary election for the Office of Congressional Delegate from the District of Columbia.

Section 9 provides that funds necessary to carry out the provisions of the District Election Act as amended by the delegate act are authorized to be appropriated.

Mr. PROUTY. Mr. President, the bills before the Senate today, S. 2163 and S. 2164, present a new approach to the establishment of a government by which the District of Columbia may be granted a greater measure of self-government than presently exists. Time and time again the Senate has considered bills on government for the District, only to have them fail in final enactment. As I said, when I introduced this bill, S. 2164, for the administration:

We should forget past failures, admit we must take a new approach and get on with it.

Washington, D.C., as the Nation's Capital, stands alone in the spotlight. Its problems are national problems and its successes are imitated throughout the Nation. Congress is charged with the responsibility, not only to the residents of the city but to the citizens of the Nation, to create in this city the best form of municipal government possible and to make it a model for other American cities to emulate.

A Commission on Government for the District of Columbia, Mr. President, which this bill provides, is the most practical and realistic means of attaining the goal of the best form of government for the District. The composition of the Commission provides for four elected members giving those who would be governed a voice in the formation of the proposal. The congressional interest would

be represented by two Members of the House of Representatives and two Members of the Senate, and the executive branch by five members appointed by the President.

The Commission will have an opportunity to review the many plans for government proposed through the years. In matters of finance, management, urban development and citizen participation it can draw upon the experience of other local governments in developing its proposals.

The bill reported by the committee, Mr. President, was amended in committee to enlarge the responsibilities of the Commission to not only examine the feasibility and desirability of various methods by which the structure of the District government may be improved but also to examine the methods by which the District government can promote economy, efficiency and improve service in its departments and agencies. This Hoover Commission amendment to the bill, offered in committee by the distinguished junior Senator from Virginia (Mr. SPONG), received my full support as well as support from other members of the committee. I think this amendment adds immeasurably to the effectiveness of the bill.

At the time I introduced S. 2164, the Commission bill, I also introduced S. 2163 which would provide for the election of the nonvoting delegate from the District of Columbia in the House of Representatives. This bill which has also been reported to the Senate, is a first step in establishing a needed link between the people of the District and the Congress. For some time I considered joining the two bills as one, but faced with the realities of such action, where one may fail because of opposition to the other, I felt it was unwise to place either of the measures in jeopardy. Neither should be exposed to such a fate. By going it alone each measure will stand on its own merits.

Mr. President, I believe that the enactment of both S. 2163 and S. 2164 will be in the best interest of the people of the District of Columbia and the Nation and I urge the Senate to consider them favorably.

The bill (S. 2163) was ordered to be engrossed for a third reading, read the third time, and passed, as follows:

S. 2163

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act is entitled "The District of Columbia Delegate Act".

DELEGATE TO THE HOUSE OF REPRESENTATIVES

SEC. 2. The people of the District of Columbia shall be represented in the House of Representatives of the United States by a Delegate, elected by the voters of the District of Columbia, to serve during each Congress. The Delegate shall have a seat in the House of Representatives, with the right of debate, but not of voting.

He shall be at least twenty-five years of age at the time of his election, shall be a qualified elector in the District, shall have resided in the District for the three-year period immediately preceding the date of his election, and shall, if elected, hold no other paid public office. He shall forfeit his office upon failure to maintain the qualifications

required by law. He shall have all the privileges of a Representative granted by section 6 of article I of the Constitution, and be subject to the same restrictions and regulations as are imposed by law or rules on Representatives.

DEFINITIONS

SEC. 3. (a) For purposes of this Act—

(1) The term "District Election Act" means the Act of August 12, 1955 (69 Stat. 699), as amended by the Act of October 4, 1961 (75 Stat. 817; D.C. Code, sec. 1-1100) and by the Act of April 22, 1968 (82 Stat. 101).

(2) The term "Delegate" means the Delegate to the House of Representatives from the District of Columbia referred to in section 2 of this Act.

(b) Section 2 of the District Election Act is amended by adding the following new subsection (6) at the end thereof:

"(6) The term 'Delegate' means a Delegate to the House of Representatives from the District, elected pursuant to the provisions of this Act."

ELECTION OF DELEGATE

SEC. 4. Section 8 of the District Election Act is amended (A) by redesignating subsection "(h)", "(i)", "(j)", and "(k)" as subsections "(n)", "(o)", "(p)", and "(q)" respectively, and (B) by adding the following new subsections (h), (l), (j), (k), (l), and (m):

"(h) The Delegate shall be elected by the people of the District of Columbia in a general election. The nomination and election of the Delegate and candidates for Delegate shall be governed by the provisions of this Act. Each candidate for Delegate in any general election shall, except as otherwise provided in subsection (j) of this section and in section 10(d) hereof, have been elected as such a candidate by the next preceding primary or party runoff election. No political party shall be qualified to hold a primary election for Delegate unless, in the next preceding election year, at least seven thousand five hundred votes were cast in the general election for a candidate of such party for Delegate or for its candidates for electors of President and Vice President.

"(i) Each candidate in a primary election for Delegate shall be nominated for such office by a petition, (1) filed with the Board not later than forty-five days before the date of such primary election; (2) signed by no less than two thousand persons duly registered under section 7 and of the same political party as the nominee; and (3) accompanied by a filing fee of \$100. Such fee may be refunded only in the event that the candidate withdraws his nomination by writing received by the Board not later than three days after the date on which nominations are closed. A nominating petition for a candidate in a primary election for Delegate may not be circulated for signature before the ninety-ninth day preceding the date of such election and may not be filed with the Board before the seventieth day preceding such date. The Board may prescribe rules with respect to the preparation and presentation of nominating petitions and the posting and disposition of filing fees. The Board shall arrange the ballot of each political party in each such primary election so as to enable a voter of such party to vote for any one duly nominated candidate of that party for Delegate.

"(j) (1) A duly qualified candidate for the office of Delegate may, subject to the provisions of this subsection (j), be nominated directly as such a candidate for election in the next succeeding general Delegate election (including any such election to be held to fill a vacancy). Such person shall be nominated by a petition (a) filed with the Board not less than forty-five days before the date of such general election, and (b) signed by duly registered voters equal in number to 2 per centum of the total number

of registered voters of the District, as shown by the records of the Board as of ninety-nine days before the date of such election, or by five thousand duly registered voters, whichever is less: *Provided, however*, That no such signatures may be counted which shall have been made on such petition more than ninety-nine days prior to the date of such election.

"(2) Nominations for direct general election of Delegate pursuant to this subsection (j) shall be of no force and effect with respect to any person whose name has appeared on the ballot of a primary election for Delegate held within eight months prior to the date of such general Delegate election.

"(k) In each general election for the office of Delegate, the Board shall arrange the ballots so as to enable a voter to vote for any one of the candidates for Delegate who has been duly elected by any political party in the next preceding primary or party runoff election for such office, who has been duly nominated to fill vacancies in such office pursuant to subsection (d) of section 10 of this Act, or who has been nominated directly as a candidate for general election pursuant to subsection (j) hereof.

"(l) The signature of a registered voter on any petition filed with the Board and nominating a candidate for primary or general election to any office shall not be counted if such voter also signed any other petition, filed earlier with the Board, and nominating the same or any other candidate for the same office in the same election.

"(m) Designations of offices of local party committees to be filled by election pursuant to clause (3) of section 1 of this Act shall be effected by written communications filed with the Board not later than ninety days before the date of such election."

SEC. 5. (a) Subsection (a) of section 10 of the District Election Act is hereby amended (A) by redesignating subsections (3), (4), (5), and (6) as subsections (6), (7), (8), and (9), respectively, and (B) by inserting after subsection (2) thereof the following:

"(3) Except as otherwise provided in the case of special election, primary elections of each political party for candidates for the office of Delegate shall be held on the first Tuesday in May of each even-numbered year, and general elections for Delegate shall be held on the Tuesday next after the first Monday in November of each even-numbered year.

"(4) Runoff elections shall be held whenever, (1) in any primary election of a political party for candidates for the office of Delegate no one candidate has received as much as 40 per centum of the total votes cast in that election for all candidates for Delegate of that party, and (2) whenever in any general election for Delegate no one candidate has received as much as 40 per centum of the total votes cast for all candidates in that election. Any such runoff election shall be held not less than three weeks nor more than six weeks after the date on which the Board has determined the results of any primary or general election. At the time of announcing any such determination, the Board shall establish and announce the date on which the runoff election will be held, if one is required. The candidates in any such runoff election shall be the two persons who had received respectively the two highest numbers of votes in such prior primary or general election: *Provided, however*, That if any person withdraws his candidacy from such runoff election (under rules and within time limits prescribed by the Board), the person who received the next highest number of votes in such prior election and who is not already a candidate in the runoff election shall automatically become such a candidate.

"(5) With respect to special elections required or authorized by this Act, the Board shall have the power to establish the dates

on which such special elections are to be held, and to prescribe such other terms and conditions as may in the Board's opinion be necessary or appropriate for the conduct of such elections in a manner comparable to that prescribed for other elections held pursuant to this Act."

(b) The last sentence of subsection (a) (9) of section 10 of the District Election Act is amended by deleting the number "(5)" at the end thereof, and substituting in place thereof the number "(8)".

(c) Subsection 10(b) of the District Election Act is amended by inserting after the words "general election for" the words, "Delegates and".

(d) Section 10(c) of the District Election Act is amended by (1) deleting after the words "of a tie vote", the word "in", and inserting in lieu thereof the words "the resolution of which will affect the outcome of", and (2) by deleting the words "following the election" and inserting in lieu thereof the words "following determination by the Board of the results of the election which require the resolution of such tie."

(e) Subsection (d) of section 10 of the District Election Act is amended (1) by inserting after the words "official other than" the words "a Delegate or winner of Delegate primary election, or" and (2) by inserting the following additional sentences at the end thereof: "In the event that such a vacancy occurs in the office of a candidate for Delegate who has been declared the winner in the preceding Delegate primary or party runoff election, the vacancy may be filled not later than fifteen days prior to the next Delegate general election, by nomination by the party committee of the party which nominated his predecessor, and by paying the filing fee required by section 8(i). In the event that such a vacancy occurs in the office of Delegate, the Board shall call special elections to fill such vacancy for the remainder of the term but no such vacancy shall be filled which occurs within five months of the expiration of a congressional term."

AMENDMENT OF TITLE 2, UNITED STATES CODE, AND OTHER LAWS OF GENERAL APPLICATION

SEC. 6. (a) The Act of March 4, 1925 (sec. 4, ch. 549, 43 Stat. 1301, as amended (2 U.S.C. 31)), is amended by deleting the word "and" after the words "Representatives in Congress", and by inserting after the words "Puerto Rico" a comma followed by the words "and the Delegate from the District of Columbia".

(b) Revised Statutes, section 51, Act of July 16, 1914 (ch. 141, sec. 1, 38 Stat. 458 (2 U.S.C. 37)), is amended by deleting the word "and" after the word "Congress", and by inserting a comma in lieu thereof, and by adding, after the word "Commissioners", the words "Delegate from the District of Columbia."

(c) The Act of July 2, 1954 (ch. 455, title I, sec. 105, 68 Stat. 409, as amended (2 U.S.C. 38a)), is amended by inserting after "Resident Commissioner to," the words "or Delegate to".

(d) The Act of June 23, 1949 (ch. 238, sec. 6, 63 Stat. 265 (2 U.S.C. 461)), section 11(a) of the Legislative Appropriation Act, 1956 (69 Stat. 509, as amended (2 U.S.C. 60g-1)), and the Act of March 25, 1953 (ch. 10, sec. 4, 67 Stat. 8 as renumbered (2 U.S.C. 112c)), are each amended by deleting the words "from a Territory," and by inserting a comma in lieu thereof.

(e) The last sentence of the eighteenth paragraph under the subheading "CONTINGENT EXPENSES OF THE HOUSE" under the heading "HOUSE OF REPRESENTATIVES" in the Legislative Appropriation Act, 1955, as amended (2 U.S.C. 122), is amended (1) by deleting the word "and" following the words "Members of the House of Representatives" and by inserting a comma in lieu thereof,

(ii) by deleting the semicolon after the words "Resident Commissioner from Puerto Rico" and by inserting in lieu thereof the words "and the Delegate from the District of Columbia"; and (iii) by inserting after the words, "district, Puerto Rico," the words "District of Columbia."

(f) Subsection (i) of section 1 of the Act of June 25, 1910 (ch. 392, 36 Stat. 822, as amended; 2 U.S.C. 241 (1)), and section 591, title 18, United States Code, are each amended by deleting the period at the end thereof and by inserting in lieu thereof a comma followed by the words "and the District of Columbia."

(g) Chapter 11, title 18, United States Code, section 201 is amended by deleting the word "or" after the words "Member of Congress" and inserting the words "or Delegate from the District of Columbia" after the words "Resident Commissioner"; sections 203 and 204 are each amended by deleting the word "or" following the words "Resident Commissioner" and by inserting after the words "Resident Commissioner-elect" the words "Delegate from the District of Columbia, or Delegate-elect from the District of Columbia."

(h) Section 594, title 18, United States Code, is amended by deleting the words "Delegates or Commissioners from the Territories and Possessions" and by inserting in lieu thereof the words "Delegate or Resident Commissioners".

(i) The first paragraph of section 595, title 18, United States Code, is amended by deleting the words "from any Territory or Possession," and by inserting a comma in lieu thereof.

(j) Section 11(c) of the Act of August 6, 1965 (Public Law 89-110, 79 Stat. 443; 42 U.S.C. 1973i(c)) is amended by inserting after "or Delegates or Commissioners from the" the words "District of Columbia or".

(k) Title 10, United States Code, sections 4342(a)(5) and 9342(a)(5), are each amended by deleting the word "Commissioners" and by inserting in lieu thereof the words "Delegate in Congress"; Section 6954(a)(5) of such title is amended by deleting the words "Commissioners of" and by inserting in lieu thereof the words "Delegate in Congress from".

(l) The second sentence in the second paragraph of section 7 of the District of Columbia Alcoholic Beverage Control Act, as amended (D.C. Code, sec. 25-107), is amended by striking out the words "the Presidential" and by inserting in lieu thereof the word "any".

MISCELLANEOUS AMENDMENTS OF DISTRICT ELECTION ACT

SEC. 7. (a) Clause (A) of subsection (2) of section 2 of the District Election Act is amended by inserting after the words "has resided" the words "or has been domiciled."

(b) Clause 2 of subsection (a) of section 8 of the District Election Act is amended by deleting the words "one hundred," and inserting in lieu thereof the words "two hundred."

(c) The first sentence of section 9(b) of the District Election Act is amended by deleting the words "The vote" and by substituting in lieu thereof the words "Except as otherwise provided by regulation of the Board, the vote".

(d) The first and second sentences of section 9(f) of the District Election Act are hereby amended to read as follows:

"(f) If a qualified elector is unable to record his vote by marking the ballot or operating the voting machine an official of the polling place shall, on the request of the voter, enter the voting booth and comply with the voter's directions with respect to recording his vote. Upon the request of any such voter, a second official of the polling place shall also enter the voting booth and witness the recordation of the voter's directions. The official or officials shall in no way

influence or attempt to influence the voter's decisions, and shall tell no one how the voter voted."

(e) Section 1 of the District Election Act is amended (i) by inserting after the words "Vice President of the United States" a comma, followed by the words "a Delegate to the House of Representatives"; (ii) by inserting the word "and" after the semicolon in clause (2); (iii) by deleting the present clause (3) in its entirety; and (iv) by renumbering as clause (3) the present clause (4).

(f) Sections 8(a) and 10(a) (1) of the District Election Act are amended (i) by deleting the words "clauses (1), (2), and (3)" and by inserting in lieu thereof the words "clauses (1) and (2)," and (ii) by deleting the words "clause (4)" and by inserting in lieu thereof the words "clause (3)".

(g) Section 8(c) of the District Election Act is amended (i) by deleting the words "The Board shall", and inserting in lieu thereof the words "Except as otherwise provided, the Board shall", and (ii) by amending subsection 1 to read as follows:

"(1) to vote, in any election of officials referred to in clauses (1) and (2) of the first section of this Act and of officials designated pursuant to clause (3) of such section, separately or by slates for the candidates duly qualified and nominated for election to each such office or group of offices by such party under subsections (a) and (b) of this section 8."

(h) Section 9(c) of the District Election Act is amended to read as follows:

"Any group of qualified electors interested in the outcome of an election may not less than two weeks prior to such election petition the Board for credentials authorizing watchers at one or more polling places at the next election during voting hours and until the count has been completed. The Board shall formulate rules and regulations not inconsistent with this Act to prescribe the form of watchers' credentials, to govern the conduct of such watchers, and to limit the number of watchers so that the conduct of the election will not be unreasonably obstructed. Subject to such rules and regulations watchers may challenge prospective voters whom they believe to be unqualified to vote."

(i) Section 9 of the District Election Act is amended (i) by redesignating subsection "(h)" to subsection "(i)", and (ii) by inserting the following new subsection (h):

"(h) In the event that the total number of candidates of one party nominated to an office or group of offices of that party pursuant to section 8(a) or 8(1) of this Act does not exceed the number of such offices to be filled, the Board may, prior to election day and, notwithstanding the provisions of section 8(c) or 8(1) of this Act, declare the candidates so nominated to be elected without opposition, in which case the fact of their election pursuant to this paragraph shall appear for the information of the voters on any ballot prepared by the Board for their party for the election of other candidates in the same election."

(j) The first sentence of section 4(b) of the District Election Act is amended to read "Each member of the Board shall be paid compensation at the rate of \$50 per day, with a limit of \$2,500 per annum, while performing duties under this Act."

(k) Subsection (e) of section 13 of the District Election Act is amended by striking out the words "ten days" and by inserting in lieu thereof the words "thirty days".

(l) Section 14 of the District Election Act is amended by striking out the words "his place of residence or his voting privilege in any other part of the United States," and by inserting in lieu thereof the words "his qualifications for voting or for holding elective office, or be guilty of violating section 9, 12, or 13 of this Act."

(m) Subsection (g) of section 9 of the District Election Act is amended to read as follows:

"(g) No person shall vote more than once in any election nor shall any person vote in a primary or party runoff election held by a political party other than that to which he has declared himself to be a member."

(n) Subsection (b) of section 13 of the District Election Act is amended by inserting after the words "Vice President," the word "Delegate,"; by inserting after the word "committeewoman" the word "or"; and by deleting the words "or alternate,".

(o) Subsection (d) of section 13 of the District Election Act is amended by inserting after the word "elector," the word "Delegate,"; by inserting after the word "committeewoman" the word "or"; and by deleting the words "or alternate,".

EFFECTIVE DATES

SEC. 8. (a) Except as otherwise provided in this Act, its provisions shall take effect upon the date of its approval.

(b) The first primary election of each political party for candidates for the office of Delegate shall be held on the first Tuesday in May 1970.

APPROPRIATION AUTHORIZED

SEC. 9. There are hereby authorized to be appropriated such sums as are necessary to carry out the provisions of the District of Columbia Election Act as amended by this Act.

ESTABLISHMENT OF A COMMISSION ON GOVERNMENT FOR THE DISTRICT OF COLUMBIA

The Senate proceeded to consider the bill (S. 2164) to establish a Commission on Government for the District of Columbia, which had been reported from the Committee on the District of Columbia, with amendments, on page 1, at the beginning of line 3, strike out "That there is hereby established the Commission on Government for the District of Columbia (referred to hereafter as the 'Commission') to examine the feasibility and desirability of various methods by which the structure of the District government may be improved and by which the District of Columbia may be granted a greater measure of self-government than presently exists.;" and, in lieu thereof, insert, "That there is hereby established the Commission on Government for the District of Columbia (referred to hereafter as the 'Commission') to examine the feasibility and desirability of various methods by which (1) the structure of the District government may be improved, (2) the District of Columbia may be granted a greater measure of self-government than presently exists, and (3) the District of Columbia government can promote economy, efficiency, and improved service in the transaction of the public business in the departments, agencies, and independent instrumentalities of the District government.;" on page 3, after line 16, strike out:

SEC. 3. (a) The Commission shall examine the feasibility and desirability of various methods by which the structure of the District government may be improved and by which the District of Columbia may be granted a greater measure of self-government than presently exists. In this connection, the Commission may study among others, the following matters:

And, in lieu thereof, insert:

Sec. 3. (a) The Commission shall examine the feasibility and desirability of various methods by which (1) the structure of the District government may be improved, (2) the District of Columbia may be granted a greater measure of self-government than presently exists, and (3) the District government can promote economy, efficiency, and improved service in the transaction of the public business in the departments, agencies, and independent instrumentalities of the District Government. In this connection, the Commission may study among others, the following matters:

On page 5, line 13, after the word "Congress";, strike out "and"; in line 18, after the word "and" where it appears the second time, strike out "instrumentalities." and insert "instrumentalities; and

"(11) the means and extent to which the District government can—

"(A) limit expenditures to the lowest amount consistent with the efficient performance of essential services, activities, and functions;

"(B) eliminate duplication and overlapping of services, activities, and functions;

"(C) consolidate services, activities, and functions of a similar nature; and

"(D) abolish services, activities, and functions not necessary to the efficient conduct of the District government."

And on page 6, line 11, after the word "than", strike out "six" and insert "eighteen"; so as to make the bill read:

S. 2164

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby established the Commission on Government for the District of Columbia (referred to hereafter as the "Commission") to examine the feasibility and desirability of various methods by which (1) the structure of the District government may be improved, (2) the District of Columbia may be granted a greater measure of self-government than presently exists, and (3) the District of Columbia government can promote economy, efficiency, and improved service in the transaction of the public business in the departments, agencies, and independent instrumentalities of the District government.

MEMBERSHIP OF THE COMMISSION

Sec. 2. (a) The Commission shall be composed of—

(1) two Senators appointed by the President of the Senate, who shall not be members of the same political party;

(2) two Members of the House of Representatives appointed by the Speaker of the House of Representatives, who shall not be members of the same political party.

(3) five persons appointed by the President of the United States, one of whom he shall designate as Chairman and another of whom he shall designate as Vice Chairman. Not more than three of these persons shall be members of the same political party.

(4) the Commissioner of the District of Columbia and the Chairman of the District of Columbia Council shall be ex officio non-voting members of the Commission; and

(5) four persons to be elected by the people of the District of Columbia.

(b) Vacancies of members appointed to paragraphs (1) through (3) of this section shall be filled in the same manner in which the original appointments were made, and subject to the same limitations with respect to party affiliation. Vacancies of the members elected under paragraph (5) shall be filled by the President.

(c) Seven members shall constitute a

quorum, but a lesser number may conduct hearings.

(d) Members of the Commission shall not be deemed to be officers or employees of the United States by virtue of such service.

DUTIES OF THE COMMISSION

Sec. 3. (a) The Commission shall examine the feasibility and desirability of various methods by which (1) the structure of the District government may be improved, (2) the District of Columbia may be granted a greater measure of self-government than presently exists, and (3) the District government can promote economy, efficiency, and improved service in the transaction of the public business in the departments, agencies, and independent instrumentalities of the District government. In this connection, the Commission may study among others, the following matters:

(1) the basic structure of the District government and its relationship to the United States Government;

(2) the legislative authority to be delegated by the Congress to the District government to carry out the powers of local self-government;

(3) the authority of the District government and the allocation of such authority between the executive and legislative branches of the District government;

(4) the fiscal authority of the District government, including its authority to borrow for capital improvements, to engage in short-term borrowing, to provide for payment of bonds and notes, to make legal investments and to exercise other necessary fiscal authority;

(5) the taxing authority of the District government;

(6) the financial administration of the District government and audits of its affairs;

(7) the adjustment of Federal and District expenses and other arrangements between the District and the United States;

(8) elections in the District;

(9) the extent to which the Congress should reserve its authority to amend any charter of self-government which may hereafter be granted, the extent to which such charter may be amended by the people of the District and the extent to which such amendment should be subject to approval by the President or the Congress;

(10) all other appropriate and necessary subjects of legislation within the District consistent with the Constitution of the United States, which may establish the relationship between the District government and the Federal Government and its agencies and instrumentalities; and

(11) the means and extent to which the District government can—

(A) limit expenditures to the lowest amount consistent with the efficient performance of essential services, activities, and functions;

(B) eliminate duplication and overlapping of services, activities, and functions;

(C) consolidate services, activities, and functions of a similar nature; and

(D) abolish services, activities, and functions not necessary to the efficient conduct of the District government.

(b) The Commission shall submit to the President and the Congress a comprehensive report of its findings and recommendations as soon as practicable and in no event later than eighteen months after the election of the members of the Commission provided for by section 2(a)(5) of this Act. The Commission is authorized to issue such interim reports as it deems necessary prior to the submission of its final report. The Commission shall cease to exist thirty days following the submission of its final report.

POWERS OF THE COMMISSION

Sec. 4. (a) The Commission or, on the authorization of the Commission, any subcommittee or member thereof, may, for the

purpose of carrying out its functions and duties, hold such hearings and sit and act at such times and places, administer such oaths, and require, by subpoena or otherwise, the attendance and testimony of such witnesses, and the production of such books, records, correspondence, memorandums, papers, and documents as the Commission or such subcommittee or member may deem advisable. Subpenas may be issued over the signature of the Chairman or Vice Chairman, or any duly designated member, and may be served by any person designated by the Chairman, the Vice Chairman, or such member.

(b) The Commission, acting through its Chairman, is authorized to request from any department, agency, or independent instrumentality of the Federal and District Governments any information and assistance it deems necessary to carry out its functions under this Act; and each such department, agency, and instrumentality is authorized and directed to cooperate with the Commission, and, to the extent permitted by law and available appropriations, to furnish such information and assistance to the Commission upon request by the Chairman.

(c) The Commission is authorized to accept, hold, and administer gifts and bequests of money, securities, and other personal property of whatsoever character absolutely or in trust, for purposes for which this Commission is created.

(d) The Commission may appoint and fix the compensation of such personnel as it deems advisable without regard to (1) the provisions of title 5, United States Code, governing appointments in the competitive service, and (2) the provisions of chapter 51 and subchapter III of chapter 53 of such title, relating to classification and general schedule pay rates, except that no person shall receive compensation in excess of the rate now or hereafter provided for grade GS-18.

(e) The Commission may obtain the services of experts and consultants in accordance with section 3109 of title 5, United States Code.

(f) When so authorized by the Commission, any member of the Commission may take any action which the Commission is authorized to take by this section.

COMPENSATION OF COMMISSION MEMBERS

Sec. 5. (a) Members of the Commission who are Members of the Congress or full-time officers or employees of the United States or the District of Columbia shall receive no additional compensation on account of their service on the Commission. The other members of the Commission shall be entitled to receive compensation at the rate now or hereafter provided for grade GS-18 of the General Schedule for employees for each day (including traveltime) during which they are engaged in the actual performance of duties vested in the Commission.

(b) While traveling on official business in the performance of services for the Commission, members of the Commission shall be allowed expenses of travel, including per diem instead of subsistence, in accordance with subchapter I of chapter 57 of title 5, United States Code.

ELECTION OF COMMISSION MEMBERS FROM THE DISTRICT OF COLUMBIA

Sec. 6. (a) Four members of the Commission shall be elected at large by the people of the District of Columbia, pursuant to the provisions of the District of Columbia Election Act (Act of August 12, 1955, 69 Stat. 699, as amended by the Act of October 4, 1961, 75 Stat. 817; sec. 401, Reorganization Plan Numbered 3 of 1967; Public Law 90-292, Ninetieth Congress) and pursuant to the provisions of section 2 of the District of Columbia Board of Education Act of June 20, 1906 (D.C. Code, sec. 31-101), as amended.

(b) The general election of such members shall take place on the date of the first general, primary, or runoff election (whichever occurs earlier) to be held pursuant to the provisions of the District of Columbia Election Act and of the District of Columbia Board of Education Act which takes place more than ninety days after the approval of this Act.

(c) If the general election of such members held under subsection (b) of this section would not take place within one hundred and eighty days after approval of this Act, the Board of Elections for the District of Columbia shall provide for a special election of such members. Such election shall take place as soon after the approval of this Act as it can reasonably be held, but no less than ninety days and no more than one hundred and eighty days after the approval of this Act.

(d) The provisions of the District of Columbia Election Act and of section 2 of the District of Columbia Board of Education Act, as amended, relating to the election of candidates for the Board of Education elected at large, shall apply to the election of the elected members of the Commission, except as otherwise modified by this Act.

(e) (1) The following provisions of the District of Columbia Election Act shall not be applicable to the election of elected members of the Commission: Section 1, subsections (a), (c), (d), (e), (f), (g), and (h) (1) of section 8, subsections (a) (1) and (a) (2), (d), and (e) of section 10, subsection (b) (c), (d), and (e) of section 13 and section 15.

(2) The following provisions of section 2 of the District of Columbia Board of Education Act, as amended, shall not be applicable to election of elected members of the Commission: Section (2) (a), (b), subsection (1) or section 2(c), section 2 (d) and (e).

ADMINISTRATIVE SERVICES

SEC. 7. The General Services Administration shall provide administrative services for the Commission on a reimbursable basis.

AUTHORIZATION OF APPROPRIATIONS

SEC. 8. There are hereby authorized to be appropriated, out of moneys in the Treasury not otherwise appropriated, such amounts as may be necessary to carry out the purposes of this Act.

Mr. KENNEDY. Mr. President, I ask unanimous consent to have printed in the RECORD an excerpt from the report (No. 91-434), explaining the purposes of the measure.

There being no objection, the excerpt was ordered to be printed in the RECORD, as follows:

PURPOSE OF BILL

The purpose of the bill S. 2164 is generally to create a home rule study commission for the District of Columbia, to serve at the same time as a local investigative commission (a local Hoover Commission) to study in detail the operations of the District of Columbia government.

More specifically, the purpose of S. 2164, (as stated therein), is to establish a Commission on Government for the District of Columbia to examine the feasibility and desirability of various methods by which (1) the structure of the District government may be improved, (2) the District of Columbia may be granted a greater measure of self-government than presently exists, and (3) the District of Columbia government can promote economy, efficiency, and improved service in the transaction of the public business in the departments, agencies, and independent instrumentalities of the District government.

The Commission on Government is to consist of 15 members—two Senators, two Members of the House of Representatives, five Presidential appointees, and four members

elected by the people of the District of Columbia, along with, ex officio, the District Commissioner and the Chairman of the District of Columbia Council. While being charged with reasonable expedition, the Commission is allowed 18 months to submit its findings and recommendations to the President and to the Congress.

NEED FOR LEGISLATION

S. 2164 reflects, first, the awareness of this committee of the continued anomaly of the disfranchisement of Washington's 850,000 citizens. Unique among the constituent jurisdictions of the United States, the District of Columbia as such is governed entirely by appointed officials and employees.

In such a setting, in the National Capital, the move toward greater self-government is as inevitable as the ideal of democracy is cherished. The Senate District Committee, moreover, was persuaded that self-government can enhance good government by assuring the support of the people to be governed.

The committee recognized that the important position which the District of Columbia occupies—as a model for the Nation, the National Capital, as well as the residence of nearly a million persons—requires that the form of government in this city be acceptable at once to the Congress, to the President, to the Nation, and to Washingtonians. Yet, to date, proposals for particular forms of government, fashioned or approved by this committee, have not in fact achieved full acceptance. The committee concluded that some novel approach is necessary.

The committee further noted that recent developments in political thinking appear to pose, as never before, conflicting trends in the field of urban government. While some would urge an expansion of interjurisdictional cooperation, others urge decentralization or diffusion of governmental services. While some would urge increased professionalization of local government, others urge increased citizen participation. With this in mind also, the committee opted to create a study commission, whereby disparate thinking might more easily be tapped, reconciled, and implemented.

In specifically charging the Commission on Government (in S. 2164) with a review of the operations of the District government, the Senate committee was mindful of the need for shoring up the administrative underpinnings of any new form of city government. The committee likewise sought to institutionalize intensive oversight and reform, as the logical counterpart of its approval of increased Federal moneys for the support of the District of Columbia government, and of the committee's repeated authorization for an expansion of local governmental activities.

HISTORY OF LEGISLATION

The Senate Committee on the District of Columbia had pending before it four bills relating to home rule—S. 1971, providing for the election of the existing District of Columbia Council, S. 1972 and S. 1991, updated versions of the home rule measure (S. 1118) passed by the Senate in the 89th Congress, first session (providing immediate home rule with a Mayor-Council form of government), and S. 2164, introduced on behalf of the administration, providing a home rule study commission.

A public hearing was held by this committee on April 30, 1969, at which time the committee had before it S. 1971, S. 1972, S. 1991, and the message of the President to the Congress of the United States, dated April 28, 1969. That message outlined the substance of the provisions of S. 2164, which was introduced thereafter, on May 13, 1969.

The amendments were agreed to.

The bill was ordered to be engrossed for a third reading, read the third time, and passed.

FEDERAL COAL MINE HEALTH AND SAFETY ACT OF 1969

The Senate resumed the consideration of the bill (S. 2917) to improve the health and safety conditions of persons working in the coal mining industry of the United States.

Mr. KENNEDY. Mr. President, I ask unanimous consent that the pending amendment be temporarily set aside and that the amendment I now offer may be considered.

The PRESIDING OFFICER. Without objection, it is so ordered. The amendment offered by the Senator from Massachusetts will be stated.

The assistant legislative clerk proceeded to read the amendment.

Mr. KENNEDY. Mr. President, I ask unanimous consent that further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered; and, without objection, the amendment will be printed in the RECORD.

The amendment is as follows:

On page 85, line 25, immediately after "(h)", insert "(1)".

On page 86, between lines 11 and 12, insert the following:

"(2) No person shall discharge or in any other way discriminate against or cause to be discharged or discriminated against any miner or any authorized representative of miners by reason of the fact that such miner or representative (A) has notified the Secretary or his authorized representative of any alleged violation or danger pursuant to paragraph (1) of this subsection, (B) has filed, instituted or caused to be instituted any proceeding under this Act, or (C) has testified or is about to testify in any proceeding resulting from the administration or enforcement of the provisions of this Act.

"(3) Any miner or a representative of miners who believes that he has been discharged or otherwise discriminated against by any person in violation of paragraph (2) of this subsection may, within thirty days after such violation occurs, apply to the Secretary for a review of such alleged discharge or discrimination. A copy of the application shall be sent to such person who shall be the respondent. Upon receipt of such application, the Secretary shall cause such investigation to be made as he deems appropriate. Such investigation shall provide an opportunity for a public hearing at the request of any party, to enable the parties to present information relating to such violation. The parties shall be given written notice of the time and place of the hearing at least five days prior to the hearing. Any such hearing shall be of record and shall be subject to section 554 of title 5 of the United States Code. Upon receiving the report of such investigation, the Secretary shall make findings of fact. If he finds that such violation did occur, he shall issue an order requiring the person committing such violation to take such affirmative action to abate the violation as the Secretary deems appropriate, including, but not limited to the rehiring or reinstatement of the miner or representative of miners to his former position with back pay. If he finds that there was no such violation, he shall issue an order denying the application. Such order shall incorporate the Secretary's findings therein. Any decision issued by the Secretary under this paragraph shall be subject to judicial review in accordance with the provisions of section 304 of this Act. Violations by any person of paragraph (2) of this subsection shall be subject to the provisions of sections 307 and 308(a) of this Act.

"(4) Whenever an order is issued under this subsection, at the request of the applicant,

a sum equal to the aggregate amount of all costs and expenses (including the attorney's fees) as determined by the Secretary to have been reasonably incurred by the applicant for, or in connection with, the institution and prosecution of such proceedings, shall be assessed against the person committing such violation."

On page 103, line 17, immediately after "section" insert "or section 301 (h) (3)".

On page 104, line 5, immediately after "section", insert "or section 301 (e) (3)".

Mr. KENNEDY. Mr. President, this is, I believe a noncontroversial matter. My proposed amendment would make it unlawful for any person to discharge or otherwise discriminate against a miner for bringing suspected violations of this act to the attention of authorities. In essence, the amendment gives to miners the same protection against retaliation which we give employees under other Federal labor laws. As a result, miners will feel free to point out health and safety hazards which this act is designed to prevent and correct.

Under the amendment, if a miner feels that he has been discharged or discriminated against because he pointed out a suspected violation, he may petition the Secretary of Interior for a review of the action. The Secretary will have a hearing to determine the validity of the charge. If the Secretary decides that the miner was wrongfully fired or transferred, he can order that he be rehired or reinstated to his former position, with or without back pay. He can enjoin the violator from further discrimination and take other appropriate action. A violator would be subject to the civil penalties, but not the criminal penalties, of the act.

A right of appeal to the Federal courts from the Secretary's decision is reserved for all parties.

If he wins his case before the Secretary, the miner can obtain costs and attorney's fees.

Mr. President, the rationale for this amendment is clear. For safety's sake, we want to encourage the reporting of suspected violations of health and safety regulations. Section 301(h) of the bill, on page 85, confirms this concern by calling for immediate inspection whenever a representative of miners believes that there may be a violation of health or safety standards.

But miners will not speak up if they fear retaliation. This amendment should deter such retaliation, and, therefore, encourage miners to bring dangers and suspected violations to public attention.

The provisions of this amendment are similar to protections in other labor laws.

The National Labor Relations Act, for example, makes it an unfair labor practice for an employer "to discharge or otherwise discriminate against an employee because he has filed charges or given testimony under this act." But this gives protection only to employees who have pointed out violations of the National Labor Relations Act, and not to those who have pointed out violations of other laws—such as the proposed Coal Mine Health and Safety Act.

The Fair Labor Standards Act, relating to minimum wage and hours worked, provides:

It shall be unlawful for any person . . . to discharge or in any other manner discriminate against any employee because such employee has filed any complaint or instituted or caused to be instituted any proceeding under or related to this act, or has testified or is about to testify in any such proceeding.

The Fair Labor Standards Act gives the employee a right to civil suit for back pay and damages. Suit can also be brought, on behalf of the employee, by the Administrator of the Wage and Hour Division of the Department of Labor.

If the suit is successful, the employee can collect reasonable attorney's fees and costs of the action from the defendant.

The Landrum-Griffin Act makes it unlawful for any person to "attempt to restrain, coerce, or intimidate any member of a labor organization for the purpose of interfering with or preventing the exercise of any right to which he is entitled under the provisions of this act."

Other labor laws have similar protections. But they do not apply in the case of the proposed coal mine health and safety bill. For the protections are written into the specific acts, and apply only for employees calling attention to violations under those specific acts.

My proposed amendment, then, simply puts into the Coal Mine Health and Safety Act the same protection which we find in other legislation.

It is especially important that miners not feel inhibited to point out health and safety violations because there is such a high degree of danger in the mines. As Mr. John Corcoran, chairman of the National Coal Association, testified:

There can be no question that the health and safety of employees in the coal industry must be given first priority.

Indeed, the first declaration of purpose in the bill before us today is that "the first priority and concern of all in the coal mining industry must be the health and safety of its most precious resource—the miner."

Mr. President, our coal miners deserve the same safeguards that we give to other employees who raise possible violations of law. My amendment provides those safeguards. I urge its adoption by the Members of this body.

Mr. JAVITS. Mr. President, may I ask the Senator's indulgence, so that we might go on to something else for a few minutes? Would the Senator be agreeable to that?

Mr. KENNEDY. Yes.

Mr. JAVITS. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER (Mr. CRANSTON in the chair). The Clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. JAVITS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. JAVITS. Mr. President, I would like to say a word about the amendment proposed by the Senator from Kentucky (Mr. COOPER) with respect to nongassy mines, and to deal with the general proposition for which the Senator from

Kentucky so redoubtably contended, which is that the nongassy mines should have special consideration because of their safety record.

I think implied in his approach is the fact that on a very broad scale nongassy mines are usually small businesses.

Neither the Senator from New Jersey (Mr. WILLIAMS) nor I have any vested interest in respect of the inclusion of nongassy mines in this legislation. Senator WILLIAMS is from New Jersey, and I am from New York. We have no great problem with any regulations which would be fair and just to assist in this very dangerous occupation of coal mining.

I wish to assure the Senator from Kentucky and the many people he represents that when we examined into this matter, we examined it with great objectivity. We had to rely on the views of the authorities who deal with mine inspection and safety all the time.

The junior Senator from Kentucky (Mr. COOK) argued that on a given occasion some years ago the Department had a different view on the nongassy mine situation. I do not challenge that. The fact is, however, that their present representation to us—to the Senate, the country, and to everyone concerned—is that if we really want safety for the miners, the Department cannot give the assurance that it will be done unless nongassy mines are covered.

They say, "Yes, the number of explosions over a long period of years is materially less in nongassy than in gassy mines and many more miners are involved." But they say, "We cannot assure you tomorrow that that may not change or that any particular nongassy mine will not explode because of the ignition of methane gas from a spark—a spark which can come from a match, a cigarette or a large or small piece of equipment."

They give as evidence the undisputable fact that there have been methane explosions of a serious character in nongassy mines. The whole concept of our country—and that is one thing we are fighting about in Vietnam and there is no more redoubtable champion for the people in Vietnam and everywhere than the Senator from Kentucky—is that one life is as important as 5,000 lives and vice versa.

That is what we are faced with here. I must say in respect to this amendment that I really am convinced that if we are going to enact a scheme of health and safety, we have to include nongassy mines for the reasons I have just stated.

When one comes to the small business aspect, that is where I have deep sympathy with what the Senator from Kentucky (Mr. COOPER) is up against and what the nongassy mine operator is up against. It is a question of financial ability to do what the interests of safety may require.

The scheme of the legislation seeks—maybe it is inadequate; I am not going to try to be silly about that—to give an extended period of time for compliance of up to 4 years. I am confident that virtually every one of the small nongassy

mines could get the full period because they could qualify under the criteria. Furthermore, it makes them eligible for small business loans.

In a memorandum that the Senator from Kentucky (Mr. COOPER) has promulgated, I notice that he challenges the cost of the conversion or other corrections of equipment.

I might tell the Senator that precisely because of the provisions in the bill which permit onsite inspection by the Bureau of Mines, the cost has been brought down materially. Of course, the original cost estimates were much higher than what the cost has been brought down to, by virtue of the provisions in the bill permitting a field inspection system. We are convinced, again objectively, since neither the Senator from New Jersey (Mr. WILLIAMS) nor I have any ax to grind, that the \$10,000 estimate of the average cost per small nongassy mine of the Bureau of Mines is sound.

We must respectfully submit, although we know that mines are small, and there are difficulties facing the individual proprietor, that this is not a forbidding sum for anyone over a period of years, an extended period of years, who is in business for himself to meet in the interests of safety.

This is the case for us, the proponents.

Let me say to the Senator from Kentucky that I, for one, will do my utmost, within the limits of reason, if more time is required to make more time available. Perhaps he might have a better suggestion as to the financing arrangements, I shall try to do what I can on that. But the fundamental proposition is that the nongassy mines should be required, ultimately to meet the standards of other mines, insofar as the prevention of explosions is concerned.

I speak now only because I hope that overnight, as the Senator considers—and we consider—this, some area of agreement may be found along the lines which I have just laid before the Senator from Kentucky (Mr. COOPER).

I have the deepest sympathy with the problems faced by small mine owners. On the other hand, it is also our responsibility. I hope very much that we can reconcile them by giving something of our time in trying to find some way to deal with the many forces involved, but still retaining the fundamental concept that a true health and safety bill in the coal mine industry demands that there be coverage for the nongassy mines as well.

Mr. COOPER. Mr. President, I appreciate very much the statement just made by my good friend, the Senator from New York (Mr. JAVITS). He is a constructive legislator. He is always reasonable. I accept wholly the statement, that he and the Senator from New Jersey (Mr. WILLIAMS) have approached this subject objectively. I know that is their attitude. That is their character. It may be said that I might not be as objective, but I think that we have to relate with objectivity one's knowledge of the situation and the facts. In that sense, I may be as objective as my friends from New Jersey and New York. I believe that I probably have a more practical knowledge of the situation in the mines, and

what would happen, because of the terms of this bill. I say that with great respect for both of them.

The Senator from New York has referred to his efforts to provide help for reconversion through a more liberal, Small Business Administration regulation. That might be helpful to a few of the large nongassy mines which can afford to purchase the machinery, but to a great majority, as shown by the report of the committee, which describes small nongassy mines their operation would not be economically feasible. They could not recoup the investment; a small business loan would be of no value.

The Senator from New York referred to the elimination of nongassy classification as a matter of conscience. It is a matter which lies upon our conscience. I am sorry that anyone should die or be injured in a coal mine. Let me point out that there are many industries in this country, where men work with their hands, that are dangerous and hazardous. Whether in the coal mines, the machine shops, the roundhouses, or the other great industries in our country, there is danger of death and injury.

I must say that, sad as the record is in each of these classes of mines, the record in the nongassy mines is better than in most hazardous industries in this country and is remarkably good.

Mr. President, the Senator from New York argues that introduction into the mines of permissible machinery would reduce ignitions. The record shows that nearly all ignitions have come from matches and smoking. That is taken care of in the bill. I wish to point out that permissible machinery has not appreciably reduced ignitions in the gassy mines.

It is a matter of conscience. Two days ago, when we were debating the question of fixing a tax upon coal for conversion, I believed in my mind and judgment that we did not have the constitutional right and so argued. But, going home that afternoon, I felt sad because I thought that perhaps it would deprive these people who suffer from the black lung diseases would be deprived of compensation. If we in good conscience should close down the small mines, then in good conscience, I should also say that we should close down the gassy mines.

If I had to vote, I believe I would have to vote that the mine in Farmington, W. Va., could not be opened again.

It is not wholly correct to say that this is a matter of conscience on one side and not a matter of conscience on the other.

Mr. President, I thank the Senator from New York. He is my friend, as he knows. We are together on practically everything. We are not together on this subject. He usually knows more about the issues of the day than I do, but I think, in this case, I may have a little more practical experience.

Mr. President, I want to thank the distinguished Senator from New Jersey (Mr. WILLIAMS) for his explanation of the bill. He pointed out accurately the great improvements which have been made by his subcommittee—including the Senator from New York (Mr. JAVITS), Senator RANDOLPH, and others.

As I have said, with the exception of

this item, and perhaps a few minor ones, I wholly support the bill.

This is such a complex question that I have laid upon the desk of each Senator a two-page statement which summarizes the position which I believe supports my amendment. I have also analyzed the cost estimates, contradictory as they are, in the report and have placed a two-page summary of it on the desk of each Senator.

I must say that they are absolutely impractical. When anyone reads them, he will know that some of the estimates must have been prepared by one who knows nothing at all about the operation of a coal mine.

For instance, it speaks of a large coal mine, or a large nongassy coal mine with an annual production of 20,000 tons. With 250 days of operation, that would be 80 tons a day. That is a very small, nongassy coal mine.

That is just one example. An experienced coal mine operator or coal miner could look at the cost estimates and know absolutely how illogical and impractical they are. I have tried to emphasize that in the summary I have made.

Now, Mr. President, I have talked too long. Again I express my thanks to my good friend from New York.

Mr. President, I ask unanimous consent to place in the RECORD two memorandums I have prepared on this subject.

There being no objection, the memorandums were ordered to be printed in the RECORD, as follows:

S. 2917, COAL MINE HEALTH AND SAFETY ACT
SHORT EXPLANATION OF AMENDMENT PROPOSED
BY SENATOR COOPER

The Coal Mine Health and Safety Act is complex and this is a short explanation of my amendment which would maintain the present classification of mines as "gassy and nongassy" as it relates to the use of certain electrical equipment.

The Coal Mine Safety Act of 1941 was only advisory, without Federal regulation.

The Act of 1952 provided Federal safety regulations and enforcement for mines employing more than 14 persons and designated as Title II mines. With respect to Title I mines—employing 14 or less—regulations were left to states. In 1966, Congress amended the Act, placing all mines without regard to the number of employees under Federal regulations.

The Bureau of Mines has recognized the distinction between "gassy" and "nongassy" mines from 1926 to the present. A mine is classed "gassy" when a test of air at specified places shows a concentration of 0.25 percentum of methane, one-quarter of one percent. Ignitions and explosions occur when methane content reaches generally 5 to 15 percent. The nongassy mines are termed "nongassy" because tests throughout the years showed that the percentum of methane is 0.25 or less.

The Bureau of Mines regulations have required and now require that "gassy" mines use "permissible equipment", equipment built, and approved by the Bureau of Mines, for the purpose of reducing sparking, because there is great danger of ignition in "gassy" mines. S. 2917, the pending bill, would change existing law and require all mines, "nongassy" as well as "gassy", to use permissible equipment. Operators of "nongassy" mines would be required to junk their present equipment and purchase permissible equipment. The cost would put many of the small mines out of business without any real contribution to safety. I am attaching a second memorandum which will indicate

the heavy cost of the requirement for permissible machinery.

Safety record of "gassy" and "nongassy" mines

I placed in the Record on June 5 and again on September 25 of this year the records furnished me by the Bureau of Mines covering the period 1952 through 1968. A comparison between "gassy" and "nongassy" mines is startling. In 392 "gassy" mines, employing about 55,000 persons, and producing about 60% of the coal, there were 381 ignitions, causing 374 deaths and 427 injuries. In the same period of time, in 3,191 "nongassy" mines there were 52 ignitions causing 27 deaths and 54 injuries.

While any deaths or injuries are sad, I must say that the safety record of "nongassy" mines is good. I also asked the Bureau of Mines for a detailed description of the causes of ignitions in "nongassy" mines which I placed in the Record on September 25, 1969. This record indicates that if permissible equipment had been used, only nine of the 51 ignitions might have been prevented by the use of permissible coal drills and blower fans, which are required by this bill, and which I support. The effect of requiring the "nongassy" mines to buy other large, expensive permissible equipment such as cutting machines, loaders and shuttle cars would put most of them out of business. The miners would be forced to find employment in the large "gassy" mines where the record of danger of deaths and injuries is great.

Repeated explosions have occurred in the "gassy" mines ranging from 2 to as many as 18, according to the records of the Bureau of Mines—"gassy" mines which were required to use permissible equipment. The explosion occurring at Consol #9 at Farmington, West Virginia, resulted in the death of 78 persons—about three times as many deaths in this one "gassy" mine as occurred in 3,191 "nongassy" mines in a period of 16 years. A similar explosion had occurred in the same mine in 1956, killing 16 persons.

The bill before us has some very helpful amendments which we hope will reduce the hazards of mining in both "gassy" and "nongassy" mines. I support these more effective regulations.

It is inconsistent for the Bureau of Mines, concerned about fatalities and the bad safety record of "gassy" mines, to keep these open and force upon the "nongassy" mines, which have a far superior safety record, the mandatory requirement to junk their present equipment and purchase permissible equipment.

MEMORANDUM BY SENATOR COOPER CONCERNING THE COSTS OF REQUIRING THE USE OF PERMISSIBLE EQUIPMENT IN "NONGASSY" MINES AS PROPOSED BY S. 2917

S. 2917 would change existing law and require the use of permissible equipment in "nongassy" mines. Unless my amendment is approved, S. 2917 would require about 3,000 "nongassy" mines be equipped with permissible machinery as is now required in 400 "gassy" mines.

I have shown in another memorandum that the Bureau of Mines' records show that in the period of 1952 to 1968, in "gassy" mines, there were 381 ignitions resulting in 374 deaths and 427 injuries. In sharp contrast, in 3,191 "nongassy" mines there were 52 ignitions, 27 deaths and 54 injuries. The "gassy" mines are dangerous and will continue to be dangerous. S. 2917 would require the "nongassy" mines, which have a good record of safety as far as ignitions are concerned, to junk their present equipment and rebuild their mines with costly permissible equipment. This would drive many of the small "nongassy" mines out of business and force their miners to find employment in the dangerous "gassy" mines.

The report of the Committee on costs is contradictory. The Committee heard no proof on the costs of refitting a "nongassy" mine with permissible equipment, except for the testimony of Mr. Cloyd McDowell who testified that the cost of fitting a section of a "nongassy" mine would be—about \$240,000. Although the Committee heard no testimony, its report, on page 31 (2. Cost of Conversion), states varying figures of costs. The first paragraph states that the minimum would be \$70 million, and a maximum of \$360 million; the same paragraph places the cost at \$51 million. The same page, fifth paragraph, states that the Department concluded the costs to be \$80 million. Page 32, fourth paragraph, puts the cost at \$51.7 million; page 32, fifth paragraph, puts the cost between \$50 million and \$60 million; and page 32, sixth paragraph, estimates costs of \$30 million.

On pages 27143 and 27144 of the Congressional Record of September 25, Senator Williams of New Jersey placed in the Record tables submitted by the Bureau of Mines. The Record shows that new equipment for a section of a mine would cost \$266,000, even larger than Mr. McDowell testified; Table 2, Rebuilt Equipment, would cost \$196,500. The table is incorrect because the first three items would not be required and the cost would be \$92,500.

Table 3, Rebuilt Equipment, \$21,450 would apply to hand-loading mines which have a small production of coal and which have practically gone out of business. For such a mine, the amount of \$21,450 would be prohibitive.

Another estimate on page 32 of the Committee Report indicates that small "nongassy" mines could be equipped with converted machinery at a cost of approximately \$10,000 per mine. These costs would apply, according to tables placed in the Record, to a mine producing annually 15,000 tons, which on an average work-year of 250 days, would average about 60 tons a day. This is completely unrealistic. The average net profit per ton is thirty cents and, if it were possible to reconvert present machinery—which is not the case—it is an unrealistic estimate of cost.

Permissible machinery is now manufactured by a few companies, and the prototype of the machinery must be approved by the Bureau of Mines.

On page 27143 of the CONGRESSIONAL RECORD of September 25, the Bureau of Mines states that if all mines are required to re-equip with permissible machinery, "it appears that a minimum of eight years might be required if the manufacturers could triple their sales capacity. It may, however, be as much as ten years . . ." (Italic supplied.)

The Committee assures us there is no problem of converting present conventional equipment to permissible equipment. In correspondence I have had with equipment manufacturers and with operators, it is evident that conventional equipment cannot be converted to permissible equipment or, if some machinery could be converted, the costs would vary greatly, and would be prohibitive.

In summary, conventional equipment cannot be converted to meet the standards of permissible equipment. The cost of junking conventional equipment and purchasing permissible equipment will force hundreds of "nongassy" mines, with an excellent safety record, out of business causing economical loss to miners, mine operators, many associated industries, and to the communities and States in which these mines are located. It will not contribute to safety. The danger lies in the "gassy" mines and not the "nongassy" mines.

Mr. JAVITS. Mr. President, I again suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

Mr. KENNEDY. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. KENNEDY. Mr. President, I understand from conversations and consultations with officials in the Department of the Interior, that they find this amendment acceptable as far as they are concerned. So I move the adoption of my amendment.

Mr. WILLIAMS of New Jersey. Mr. President, I may add that the amendment has a worthy objective and conforms the bill to other areas to which it should be extended. I accept the amendment.

Mr. GRIFFIN. Mr. President, will the Senator yield?

Mr. WILLIAMS of New Jersey. I yield.

Mr. GRIFFIN. Is this the amendment that the Senator from Massachusetts was telling me about earlier, that had been cleared with the minority staff?

Mr. KENNEDY. With members of the minority.

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Massachusetts.

The amendment was agreed to.

Mr. MOSS. Mr. President, my interest in coal mine health and safety is, in part a personal one. As you know, the State of Utah is a coal-producing State with an annual production of approximately 4-million tons per year and an average employment of over 1,200 men. Thus it is very important to me that Congress do whatever is necessary to fully protect both the health and safety of the men in the mines.

But, my interest does not only extend to those men currently employed. Utah has a coal reserve of almost 8-billion tons of which approximately one-half is considered recoverable. We in Utah hope that this reserve will form the basis for industrial development in our State and will provide for jobs and incomes for future generations of our State's residents. However, while we look with anticipation to the fullest development of our coal resources, we have an obligation to insure that such development is not paid for through the death and injury of the men who mine our coal.

The record in both the health and safety field in the Nation's coal mines is a deplorable one. Since 1960, more than 2,400 men have lost their lives in coal mine accidents. Since 1960, almost 100,000 miners have been injured while at work. This is an abominable record, a record which cries out for correction, a record which should galvanize this Congress and all others concerned to do whatever is necessary to effectuate a prompt and significant improvement in the safety field.

In 1968, 309 coal miners died in accidents. This represents an increase of almost 50 percent over the fatality record for 1967. In addition, when one considers the frequency rates of fatal accidents per million man hours, it is obvious that the situation is worsening

rather than improving. For example, in 1960 the frequency per million man-hours was 1.15, while in 1968, the frequency rate was 1.28 fatalities per million man-hours. I cite these statistics, Mr. President, only to illustrate what is obvious to all of us, that the American coal miner does not now have the protection to which he is entitled.

The record in the safety field is echoed in the area of coal mine health. Coal related diseases are ravaging our mining population to a point where a major crisis is developing in every coal field in this Nation. It has been estimated that 125,000 U.S. coal miners, active and retired, suffer from coal workers' black lung disease. More significantly, medical testimony indicates that there is an increasing incidence of the dust diseases among younger men who face the prospect of this work-related disease during what should be their prime working years.

I am alarmed, as I know you are, by these facts. Assuredly, the record substantiates the need for legislative action by this Congress and the proper enforcement of the coal mine health and safety statutes.

Coal mining is a vital industry in the United States. Coal is produced here by the most modern mining techniques available anywhere in the world. Output per man-day has improved to the point where the American coal miner is the most efficient miner on earth. Production and consumption, after a long period of decline in the early post-war years, has turned upward. Today the coal industry can look to the future with more confidence than it has ever done before. A part of this confidence is based upon the ever growing demand for all forms of energy in the United States. Since coal is the largest indigenous source of energy available to our Nation, it seems to be inevitable that coal

mining must expand to meet a large part of this energy growth.

However, it is imperative that as coal mining grows, the coal miner should not be made to suffer from occupational death and disease. He should not be subjected to the daily threat of a roof fall, a fire, or an explosion, as well as other coal mining hazards, which will kill or maim him. Nor, should he have to face the grim probability that his final years on earth will be spent gasping for breath through lungs filled with deadly coal dust.

The cost of such human misery is more than the American people have to or will bear.

I support the bill (S. 2917) as reported by the Senate Labor and Public Welfare Committee. However, I feel that it can and should be improved, and I shall support the amendment to be offered by the Senator from Montana (Mr. MERCALF) to make mandatory civil penalties for violation of the act.

It should not be left to the discretion of the Secretary of the Interior as to when penalties should be imposed. There should be no doubt that they will be imposed whenever the coal operator violates the law.

ORDER FOR ADJOURNMENT UNTIL TOMORROW AT 11 A.M.

Mr. KENNEDY. Mr. President, I ask unanimous consent that when the Senate adjourns tonight, it stands in adjournment until 11 o'clock tomorrow morning.

The PRESIDING OFFICER. Without objection, it is so ordered.

LEAVE OF ABSENCE

Mr. SPONG. Mr. President, I ask unanimous consent that I may be excused from attendance on the proceed-

ings of the Senate tomorrow, due to a death in the family.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. SPONG. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The assistant legislative clerk proceeded to call the roll.

ADJOURNMENT UNTIL 11 A.M. TOMORROW

Mr. KENNEDY. Mr. President, if there be no further business to come before the Senate this evening, I move, in accordance with the previous order, that the Senate adjourn until 11 o'clock tomorrow morning.

The motion was agreed to; and (at 5 o'clock and 34 minutes p.m.) the Senate adjourned until tomorrow, Thursday, October 2, 1969, at 11 o'clock a.m.

NOMINATIONS

Executive nominations received by the Senate October 1, 1969:

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Robert E. Wiczorowski, of Illinois, to be U.S. Executive Director of the International Bank for Reconstruction and Development for a term of 2 years, vice Covey T. Oliver, resigned.

CONFIRMATIONS

Executive nominations confirmed by the Senate October 1, 1969:

U.S. CIRCUIT COURT

Arlin M. Adams, of Pennsylvania, to be U.S. circuit judge, third circuit.

FOUR CORNERS REGIONAL COMMISSION

L. Ralph Mecham, of Utah, to be Federal cochairman of the Four Corners Regional Commission.

HOUSE OF REPRESENTATIVES—Wednesday, October 1, 1969

The House met at 12 o'clock noon. The Chaplain, Rev. Edward G. Latch, D.D., offered the following prayer:

Great peace have they who love Thy law; nothing can make them stumble.—Psalm 119: 165.

Almighty and most merciful Father, who art ever coming to Thy children with strengthening spirit, make us strong in Thee that we may serve our country with great and genuine devotion.

Give us steadfast minds with no room for unworthy thoughts, serene hearts which no trouble can disturb, and strong hands with which to do Thy will in lifting our Nation to higher levels of patriotic living.

We commend to Thy loving care all who are giving their lives for our country, that living or dying they may win for our world the fruits of justice and peace.

In the spirit of Christ we pray. Amen.

THE JOURNAL

The Journal of the proceedings of yesterday was read and approved.

MESSAGE FROM THE SENATE

A message from the Senate by Mr. Arrington, one of its clerks, announced that the Senate agrees to the amendment of the House to a bill of the Senate of the following title:

S. 713. An act to designate the Desolation Wilderness, Eldorado National Forest, in the State of California.

The message also announced that the Senate had passed a bill of the following title, in which the concurrence of the House is requested:

S. 1366. An act to release the conditions in a deed with respect to a certain portion of the land heretofore conveyed by the United States to the Salt Lake City Corp.

SPECIAL ELECTIONS—FOUR OUT OF FIVE

(Mr. BURKE of Massachusetts asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. BURKE of Massachusetts. Mr. Speaker, congratulations to the people

of the Sixth Congressional District of Massachusetts on the election of MICHAEL J. HARRINGTON to Congress yesterday.

MICHAEL J. HARRINGTON, married and the father of four, is a lawyer and member of the State house of representatives.

HARRINGTON is the first Democrat to represent this district in 157 years. He ran a hard-hitting and forceful campaign by taking a stand on the issues and by meeting the people to discuss with them the problems of the district.

MIKE HARRINGTON, who recently turned the age of 33, expressed his position on national and international issues.

Some 60 percent of the district's registered voters turned out, an unusually high figure for a special election.

Complete unofficial returns from the 186 precincts gave HARRINGTON 72,030 votes to 65,453 for his Republican opponent, William L. Saltonstall.

With HARRINGTON's overwhelming victory, he becomes the fourth Democrat to succeed in five special elections this year. Democrats have replaced Republicans in three of the five special elections.

We welcome him to the 91st Congress.