

# Federal Register

Thursday  
November 29, 1979

---

## Highlights

- 68525 Students in Schools of Public Health** HEW/HRA announces acceptance of applications for fiscal year 1980 grants for traineeships; apply by 1-9-80
- 68564 Vocational and Independent Living Rehabilitation Programs** HEW/HDSO proposes rules regarding authorities and new special purpose grants; comments by 2-27-80 (Part II of this issue)
- 68524 Graduate Programs in Health Administration** HEW/HRA announces acceptance of applications for fiscal year 1980 grants for traineeships; apply by 1-7-80
- 68524 Graduate Programs in Health Administration** HEW/HRA announces applications for fiscal year 1980 grants for graduate programs; apply by 1-7-80
- 68780 Plant Biology and Human Nutrition** USDA/SEA notice of competitive research grants for basic research; apply by 1-2, 1-11, and 2-1-80 (Part IX of this issue)
- 68466 Medicare Program** HEW/HCFA issues rules regarding beneficiary liability for certain nonreimbursable services of items; effective 12-31-79

CONTINUED INSIDE



**FEDERAL REGISTER** Published daily, Monday through Friday, (not published on Saturdays, Sundays, or on official holidays), by the Office of the Federal Register, National Archives and Records Service, General Services Administration, Washington, D.C. 20408, under the Federal Register Act (49 Stat. 500, as amended; 44 U.S.C. Ch. 15) and the regulations of the Administrative Committee of the Federal Register (1 CFR Ch. I). Distribution is made only by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

The Federal Register provides a uniform system for making available to the public regulations and legal notices issued by Federal agencies. These include Presidential proclamations and Executive Orders and Federal agency documents having general applicability and legal effect, documents required to be published by Act of Congress and other Federal agency documents of public interest. Documents are on file for public inspection in the Office of the Federal Register the day before they are published, unless earlier filing is requested by the issuing agency.

The Federal Register will be furnished by mail to subscribers, free of postage, for \$5.00 per month or \$50 per year, payable in advance. The charge for individual copies of 75 cents for each issue, or 75 cents for each group of pages as actually bound. Remit check or money order, made payable to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

There are no restrictions on the republication of material appearing in the Federal Register.

Area Code 202-523-5240

## Highlights

- 68482 Handicap Nondiscrimination** EEOC proposes regulations defining discrimination against qualified individuals employed in programs and activities receiving EEOC assistance; comments by 1-28-80
- 68457 Employee Retirement Income Security** Joint Board for the Enrollment of Actuaries issues rule governing eligibility for enrollment to perform actuarial services; effective 11-13-79
- 68463 Certain Guarantee Agreements** Treasury/IRS issues rule relating to treatment of losses resulting from payments made; effective for losses after 12-31-75
- 68458 Collapsible Corporations** Treasury/IRS issues rules providing guidance to taxpayers for compliance with the Act; transactions occurring after 9-22-64
- 68489 Veterans Burial Benefits** VA proposes to increase headstone or marker monetary allowance; comments by 12-31-79
- 68624 Drinking Water** EPA issues National Interim Primary Drinking Water Regulations establishing maximum contaminant level for total trihalomethanes (Part III of this issue)
- 68470 Motor Vehicle Safety Standards** DOT/NHTSA issues rules regarding protection to trucks, buses and multipurpose passenger vehicles; effective 9-1-81
- 68501 Occupant Crash Protection** DOT/NHTSA specifies a comment closing date of an evaluation plan for Federal Motor Vehicle Safety Standard No. 208; comments by 2-29-80
- 68509, 68513 Crude Oil Cost Data Entitlement Program** DOE makes available costs of various segments of refining industry for November 1978 through August 1979, and for September 1979 (2 documents)

### 68561 Sunshine Act Meetings

#### Separate Parts of This Issue

- 68564 Part II, HEW/HDSO  
 68624 Part III, EPA  
 68710 Part IV, EPA  
 68732 Part V, HUD  
 68738 Part VI, DOT/FAA  
 68764 Part VII, SEC  
 68776 Part VIII, EPA  
 68780 Part IX, USDA, SEA  
 68790 Part X, Interior, BLM

# Contents

Federal Register

Vol. 44, No. 231

Thursday, November 29, 1979

- Actuaries, Joint Board for Enrollment**  
**RULES**  
 68457 Actuarial services under ERISA; examination fee
- Agricultural Marketing Service**  
**RULES**  
 68478 Oranges (navel), grown in Ariz. and Calif.
- Agriculture Department**  
*See* Agricultural Marketing Service; Federal Crop Insurance Corporation; Forest Service; Science and Education Administration.
- Alcohol, Drug Abuse, and Mental Health Administration**  
**NOTICES**  
 Meetings:  
 68524 Mental Health National Advisory Council; correction
- Civil Aeronautics Board**  
**NOTICES**  
 Hearings, etc.:  
 68503 U.S.-South America service; correction  
 68561 Meetings; Sunshine Act
- Coast Guard**  
**RULES**  
 Boating safety:  
 68466 Electrical systems on recreational boats; correction  
 Vessel documentation:  
 68468 Home port of vessels designation, foreign and American built and foreign flag vessels documentation; elimination of requirements
- PROPOSED RULES**  
 Drawbridge operations:  
 68488 California  
 68495 Safety approval of cargo containers
- Commerce Department**  
*See* Industry and Trade Administration; National Oceanic and Atmospheric Administration.
- Economic Regulatory Administration**  
**NOTICES**  
 Consent orders:  
 68511 Ak-Sar-Ben Standard et al.  
 Crude oil, domestic; allocation program; 1979; entitlement notices:  
 68513 September  
 Crude oil, domestic; entitlements program cost data, 1978-1979:  
 68509 November through August  
 Powerplant and industrial fuel use; existing powerplant or installation; classification requests:  
 68508 American Hoechst Corp.  
 68508 Wabash Power Equipment Co.
- Energy Department**  
*See also* Economic Regulatory Administration; Federal Energy Regulatory Commission.  
**NOTICES**  
 International atomic energy agreements; civil uses; subsequent arrangements:  
 68522 European Atomic Energy Community et al.  
 68523 United States and Spain
- Environmental Protection Agency**  
**RULES**  
 Water pollution control:  
 68624 Drinking water; interim primary regulations; control of trihalomethanes  
**PROPOSED RULES**  
 68776 Environmental effects abroad of major EPA actions  
 Toxic substances:  
 68489 Polychlorinated biphenyls; manufacturing, processing, distribution in commerce, and use prohibitions in hydraulic systems; clarification  
 Water pollution; effluent guidelines for point source categories:  
 68710 Gum and wood chemicals
- Equal Employment Opportunity Commission**  
**PROPOSED RULES**  
 68482 Handicapped nondiscrimination in federally assisted programs
- Federal Aviation Administration**  
**RULES**  
 Airworthiness directives:  
 68443, Detroit Diesel Allison (2 documents)  
 68444  
 68444 Messerschmitt-Bolkow-Blohm  
 68445 Sikorsky  
 Airworthiness standards:  
 68745 Tires; technical standard order authorizations  
 68738 Wheels and wheel-brake assemblies; technical standard order authorizations  
 68446 Control areas  
 68446 Control zones and transition areas  
 68453 Jet routes (2 documents)  
 68452 Restricted areas (2 documents)  
 68454 Standard instrument approach procedures  
 68448- Transition areas (8 documents)  
 68451  
 68447, VOR Federal airways (2 documents)  
 68448
- PROPOSED RULES**  
 Air traffic operating and flight rules:  
 68759 Tires on turbo jet-powered transport category airplanes  
 68480 Control zones and transition areas  
 68481 Restricted areas; correction  
 68479 Transition areas  
 68479 VOR Federal airways and reporting points
- Federal Crop Insurance Corporation**  
**RULES**  
 68431 Combined commodity crop insurance  
 Crop insurance; various commodities:  
 68435 Dry beans
- Federal Deposit Insurance Corporation**  
**NOTICES**  
 68561 Meetings; Sunshine Act (2 documents)

**Federal Energy Regulatory Commission**

**NOTICES**

Hearings, etc.:

- 68517 Alabama-Tennessee Natural Gas Co.
- 68518 Atlantic Richfield Co.
- 68518 Columbia Gas Transmission Corp., et al.
- 68518 Consumers Power Co.
- 68519 Duke Power Co.
- 68519 Dunlap, E., Jr., et al.
- 68520 East Tennessee Natural Gas Co.
- 68520 Florida Gas Transmission Co.
- 68520 Hyrum, Utah
- 68520 Iowa Public Service Co.
- 68521 Mississippi River Transmission Corp.
- 68521 Montaup Electric Co.
- 68521 Mountain Fuel Resources, Inc.
- 68522 Northern Natural Gas Co.
- 68522 Northwest Pipeline Corp.
- 68522 Peter Cooper Corporations
- Natural Gas Policy Act of 1978:
- 68521 Alternative filing requirements application receipts

**Federal Highway Administration**

**RULES**

Right-of-way and environment:

- 68458 Federal-aid highway programs; air quality guidelines; interim rule and inquiry; correction

**Federal Railroad Administration**

**NOTICES**

Petitions for exemptions, etc.:

- 68544 Goodwin Railroad Co.

**Forest Service**

**NOTICES**

Environmental statements; availability, etc.:

- 68503 Nez Perce National Historical Trail, northern region

**General Accounting Office**

**NOTICES**

- 68523 Regulatory reports review; proposals, approvals, etc. (ICC)

**General Services Administration**

**NOTICES**

Authority delegations:

- 68523 Defense Department Secretary

**Health, Education, and Welfare Department**

See Alcohol, Drug Abuse, and Mental Health Administration; Health Care Financing Administration; Health Resources Administration; Human Development Services Office.

**Health Care Financing Administration**

**RULES**

Medicare:

- 68466 Nonreimbursable expenses; beneficiary liability

**Health Resources Administration**

**NOTICES**

Grants; availability:

- 68524 Health administration graduate programs (2 documents)
- 68525 Public health school students

**Housing and Urban Development Department**

See Neighborhoods, Voluntary Associations and Consumer Protection, Office of Assistant Secretary.

**Human Development Services Office**

**PROPOSED RULES**

- 68564 Vocational rehabilitation and independent living rehabilitation programs

**Industry and Trade Administration**

**NOTICES**

Meetings:

- 68503 Computer Systems Technical Advisory Committee

**Interior Department**

See Land Management Bureau; National Park Service.

**Internal Revenue Service**

**RULES**

Employment taxes:

- 68465 Employee wage and tax statements

Income taxes:

- 68458 Collapsible corporations
- 68463 Guarantee agreements; treatment of losses

**Interstate Commerce Commission**

**NOTICES**

- 68562 Meetings; Sunshine Act
- Motor carriers:
- 68544 Permanent authority applications

**Justice Department**

See also Law Enforcement Assistance Administration.

**NOTICES**

- 68537 Newspaper operating agreement; Cincinnati Enquirer and Cincinnati Post

**Land Management Bureau**

**NOTICES**

Applications, etc.:

- 68526 New Mexico (2 documents)

Meetings:

- 68525 Idaho Falls District Grazing Advisory Board

Outer Continental Shelf:

- 68525 Oil and gas lease sales; Beaufort Sea, Alaska; correction

- 68790 Oil and gas lease sales; joint Federal/State Beaufort Sea, Northern Alaska; acreage correction

Wilderness areas; characteristics, inventories, etc.:

- 68525 Nevada
- 68526 Oregon
- 68526 Utah

**Law Enforcement Assistance Administration**

**NOTICES**

- 68528 National Institute of Law Enforcement and Criminal Justice; program plan, 1980 FY

**Legal Services Corporation**

**NOTICES**

- 68538 Indian legal services; special awards to serve Native Americans of terminated and non-recognized tribes

- 68562 Meetings; Sunshine Act

- Management and Budget Office**  
NOTICES  
68542 Agency forms under review
- Materials Transportation Bureau**  
See Research and Special Programs Administration, Transportation Department.
- National Aeronautics and Space Administration**  
NOTICES  
68539 Patent licenses, exclusive:  
Nedlog Technology Group
- National Highway Traffic Safety Administration**  
RULES  
Consumer information:  
68475 Tire quality grading, uniform  
68469 Inspection standards; suspension systems; spring spacers prohibition  
Motor vehicle safety standards:  
68470 Occupant crash protection; steering control rearward displacement  
PROPOSED RULES  
Motor vehicle safety standards:  
68501 Occupant crash protection; evaluation plan; inquiry; correction  
NOTICES  
Motor vehicle safety standards; exemption, petitions, etc.:  
68544 Carlisle Tire & Rubber Co.; new pneumatic tires for vehicles other than passenger cars
- National Oceanic and Atmospheric Administration**  
PROPOSED RULES  
68501 Fishery conservation and management:  
Anchovy fishery, northern; hearing  
NOTICES  
68504 Environmental statements; availability, etc.:  
Padilla Bay estuarine sanctuary, Wash.
- National Park Service**  
NOTICES  
Management policies:  
68527 Air quality interim policy and implementation guideline; availability  
Meetings:  
68527 Gateway National Recreation Area  
68527 Upper Delaware Citizens Advisory Council
- National Transportation Safety Board**  
NOTICES  
68539 Accident reports, safety recommendations and responses, etc.; availability
- Neighborhoods, Voluntary Associations and Consumer Protection, Office of Assistant Secretary**  
RULES  
Mobile home procedural and enforcement regulations:  
68732 Modular homes; exemption certification
- Railroad Retirement Board**  
NOTICES  
68543 Supplemental annuity program; determination of quarterly rate of excise tax
- Research and Special Programs Administration, Transportation Department**  
PROPOSED RULES  
Pipeline safety:  
68491 Natural and other gas; hot taps in gas pipelines  
68493 Natural and other gas; maps and records of pipeline systems; advance notice
- Science and Education Administration**  
NOTICES  
Grants; availability, etc.:  
68780 Plant biology and human nutrition; basic research
- Securities and Exchange Commission**  
RULES  
68456 Proxy statements; solicitation by board of directors; editorial amendments  
68764 Shareholder communications and participation in corporate electoral and governance process
- Textile Agreements Implementation Committee**  
NOTICES  
68504 Export visa and exempt certification system for cotton, wool, and man-made textiles from India
- Transportation Department**  
See Coast Guard; Federal Aviation Administration; Federal Highway Administration; Federal Railroad Administration; National Highway Traffic Safety Administration; Research and Special Programs Administration, Transportation Department.
- Treasury Department**  
See Internal Revenue Service.
- United States Railway Association**  
NOTICES  
68562 Meetings; Sunshine Act
- Veterans Administration**  
PROPOSED RULES  
Adjudication; pensions, compensation, dependency, etc.:  
68489 Grave headstones or markers, Government-furnished; allotment increase  
68491 Procurement; construction contracts
- 
- MEETINGS ANNOUNCED IN THIS ISSUE**
- COMMERCE DEPARTMENT**  
Industry and Trade Administration—  
68503 Computer Systems Technical Advisory Committee, 12-19-79
- INTERIOR DEPARTMENT**  
National Park Service—  
68527 Gateway National Recreation Area, 12-14-79  
68527 Upper Delaware Citizens Advisory Council, 12-28-79
- CHANGED MEETING**
- HEALTH, EDUCATION, AND WELFARE DEPARTMENT**  
Alcohol, Drug Abuse, and Mental Health Administration—  
68524 National Advisory Mental Health Council, 12-6 and 12-7-79 (location change)

## CFR PARTS AFFECTED IN THIS ISSUE

A cumulative list of the parts affected this month can be found in the Reader Aids section at the end of this issue.

<b>7 CFR</b>		571.....	68470
401 (2 documents).....	68431,	575.....	68475
	68435	<b>Proposed Rules:</b>	
426.....	68431	192 (2 documents).....	68491,
433.....	68435		68493
907.....	68478	450.....	68495
<b>14 CFR</b>		451.....	68495
23.....	68738	452.....	68495
25 (2 documents).....	68738,	453.....	68495
	68745	571.....	68501
37 (2 documents).....	68738,	<b>50 CFR</b>	
	68745	<b>Proposed Rules:</b>	
39 (4 documents).....	68443-	662.....	68501
	68445		
71 (12 documents).....	68446-		
	68451		
73 (2 documents).....	68452		
75 (2 documents).....	68453		
97.....	68454		
<b>Proposed Rules:</b>			
71 (4 documents).....	68479		
	68481		
73.....	68481		
91.....	68759		
<b>17 CFR</b>			
240 (2 documents).....	68456,		
	68764		
<b>20 CFR</b>			
901.....	68457		
<b>23 CFR</b>			
770.....	68458		
<b>24 CFR</b>			
3282.....	68732		
<b>26 CFR</b>			
1 (2 documents).....	68458,		
	68463		
31.....	68465		
<b>29 CFR</b>			
<b>Proposed Rules:</b>			
1615.....	68482		
<b>33 CFR</b>			
183.....	68466		
<b>Proposed Rules:</b>			
117.....	68488		
<b>38 CFR</b>			
<b>Proposed Rules:</b>			
3.....	68489		
<b>40 CFR</b>			
141.....	68624		
<b>Proposed Rules:</b>			
6.....	68776		
454.....	68710		
761.....	68489		
<b>41 CFR</b>			
<b>Proposed Rules:</b>			
8-7.....	68491		
8-18.....	68491		
<b>42 CFR</b>			
405.....	68466		
<b>45 CFR</b>			
<b>Proposed Rules:</b>			
1361.....	68564		
1362.....	68564		
1363.....	68564		
<b>46 CFR</b>			
67.....	68468		
<b>49 CFR</b>			
570.....	68469		

# Rules and Regulations

Federal Register

Vol. 44, No. 231

Thursday, November 29, 1979

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510. The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each month.

## DEPARTMENT OF AGRICULTURE

### Federal Crop Insurance Corporation

#### 7 CFR Parts 401, 426

#### Combined Crop Insurance Regulations

**AGENCY:** Federal Crop Insurance Corporation.

**ACTION:** Final rule.

**SUMMARY:** This rule prescribes procedures for insuring combined crops effective with the 1980 crop year. The rule combines provisions from previous regulations for insuring combined crops in a shorter, clearer, and more simplified document which will make the program more effective administratively. This rule is promulgated under the authority contained in the Federal Crop Insurance Act, as amended.

**EFFECTIVE DATE:** November 29, 1979.

**FOR FURTHER INFORMATION CONTACT:** Peter F. Cole, Secretary, Federal Crop Insurance Corporation, U.S. Department of Agriculture, Washington, D.C., 20250, telephone 202-447-3325.

**SUPPLEMENTARY INFORMATION:** The Federal Crop Insurance Corporation (FCIC) published a notice of proposed rulemaking in the *Federal Register* on July 31, 1979 (44 FR 44857), outlining prescribed procedures for insuring combined crops effective with the 1980 crop year. In the notice, FCIC, under the authority contained in the Federal Crop Insurance Act, as amended (7 U.S.C. 1501 *et seq.*), proposed that a new Part 426 of Chapter IV in Title 7 of the Code of Federal Regulations be established to prescribe procedures for insuring combined crops effective with the 1980 crop year to be known as 7 CFR Part 426 Combined Crop Insurance.

All previous regulations applicable to insuring combined crops as found in 7 CFR 401.101-401.111, and 401.144, are

not applicable to 1980 and succeeding combined crops but remain in effect for FCIC combined crop insurance policies issued for the crop years prior to 1980.

It has been determined that combining all previous regulations for insuring combined crops into one shortened, simplified, and clearer regulation would be more effective administratively.

The Federal Crop Insurance Corporation has determined that there will be no new applications accepted for combined crop insurance under the provisions of 7 CFR Part 426, starting with the 1980 crop year. The program will be continued for those producers with continuous combined crop insurance policies.

The combined crop insurance program, begun in the 1948 crop year, was, at one time, offered in a majority of counties throughout the country as a means of insuring a variety of crops at a reduced premium rate. Over the years, participation in the program has dwindled to seven counties in North Dakota. Several of these counties presently have low participation in the combined crop program, with the majority of producers preferring individual crop coverage.

The determination to discontinue accepting new applications for combined crop insurance, while affecting only new policyholders, will afford those new policyholders a greater flexibility in insurance coverage by allowing them to select varying levels of coverage on individual crops to reduce premium costs. The same benefits will accrue to the current combined crop policyholders who determines that individual crop coverage would be more beneficial, and any insuring experience the producer earned under the combined crop insurance program will be transferred to an individual crop program if the producer decides not to continue with the combined crop program.

It should be reemphasized that the Federal Crop Insurance Corporation intends to maintain the combined crop insurance program under the provisions of 7 CFR Part 426 for those producers who wish to continue to insure their crops under their continuous combined crop insurance contract.

7 CFR Part 426 provides (1) for a Premium Adjustment Table which replaces the current premium discount provisions and includes a maximum 50

percent reduction for good insurance experience, as well as premium increases for unfavorable experience, on an individual contract basis, (2) that production guarantees will now be shown on a harvested basis with a reduction for any unharvested acreage, (3) that any premium not paid by the termination date will be increased by a 9 percent service fee with a 9 percent simple interest charge applying to any unpaid balances at the end of each subsequent 12-month period thereafter, (4) that the time period for submitting a notice of loss be extended from 15 days to 30 days, (5) that the 60-day time period for filing a claim be eliminated, (6) that three coverage level options be offered in each county, (7) that the Actuarial Table shall provide the level which will be applicable to a contract unless a different level is selected by the insured and the conversion level will be the one closest to the present percent level offered in each county, and (8) for an increase in the limitation from \$5,000 to \$20,000 in those cases involving good faith reliance on misrepresentation, as found in 7 CFR Part 426.5 of these regulations, wherein the Manager of the Corporation is authorized to take action to grant relief.

The Combined Crop Insurance regulations provide a December 31 cancellation date for all combined crop insurance counties. These regulations, and any amendments thereto, must be placed on file in the Corporation's office for the county in which the insurance is available not later than 15 days prior to the cancellation date, in order to afford farmers an opportunity to examine them before the cancellation date of December 31, 1979, before they become effective for the 1980 crop year.

Under the provisions of Executive Order No. 12044, and the Administrative Procedure Act (5 U.S.C. 553 (b) and (c)), the public was given an opportunity to submit written comments, data, and views on the proposed regulations, but none were received.

Therefore, with the exception of minor and nonsubstantive corrections to language, the regulations as contained in the proposed rule are hereby issued as a final rule to be in effect starting with the 1980 crop year.

In addition, there is hereby added to the final rule an Appendix "B", which lists the counties where combined crop insurance is available in accordance

with the provisions of 7 CFR § 426.1 outlined below which state in part that before insurance is offered in any county there shall be published by appendix to this part the names of the counties in which such insurance shall be offered.

Inasmuch as the publication of the list of counties and crops insured by the Federal Crop Insurance Corporation as contained in Appendix "B" merely provides guidance for the general public and has no effect on the provisions of the insurance plan, the Corporation has determined that compliance with the procedure for notice and public participation in the proposed rulemaking process would be impracticable, unnecessary, and contrary to the public interest. Therefore, Appendix "B" is issued without compliance with such procedure.

#### Final Rule

#### § 401.144 [Reserved]

Accordingly, pursuant to the authority contained in the Federal Crop Insurance Act, as amended (7 U.S.C. 1501 *et seq.*), the Federal Crop Insurance Corporation hereby deletes and reserves 7 CFR 401.144, with the provisions as contained therein remaining in effect for FCIC insurance policies issued for crop years prior to 1980, and issues a new Part 426 in Chapter IV of Title 7 of the Code of Federal Regulations (7 CFR Part 426) to be known as the Combined Crop Insurance Regulations, which shall remain in effect, until amended or superseded, for the 1980 and succeeding crop years, to read as follows:

### PART 426—COMBINED CROP INSURANCE

#### Subpart—Regulations for the 1980 and Succeeding Crop Years

##### Sec.

- 426.1 Availability of combined Crop Insurance.
- 426.2 Premium rates, production guarantees, coverage levels, and prices at which indemnities shall be computed.
- 426.3 Public notice of indemnities paid.
- 426.4 Creditors.
- 426.5 Good faith reliance on misrepresentation.
- 426.6 The contract.
- 426.7 The application and policy.

Authority: Secs. 506, 516, 52 Stat. 73, as amended, 77, as amended (7 U.S.C. 1506, 1516).

#### § 426.1 Availability of combined crop insurance.

Insurance shall be continued under the provisions of this subpart on combined crops in counties within limits prescribed by and in accordance with provisions of the Federal Crop Insurance

Act, as amended. The counties shall be designated by the Manager of Corporation from those approved by the Board of Directors of the Corporation. Before insurance is offered in any county, there shall be published by appendix to this part the names of the counties in which combined crop insurance will be offered.

#### § 426.2 Premium rates, production guarantees, coverage levels, and prices at which indemnities shall be computed.

The Manager shall establish premium rates, production guarantees, coverage levels, and prices at which indemnities shall be computed for combined crop which shall be shown on the county actuarial table on file in the office for the county and may be changed from year to year.

#### § 426.3 Public notice of indemnities paid.

The Corporation shall provide for posting annually in each county at each county courthouse a listing of the indemnities paid in the county.

#### § 426.4 Creditors.

An interest of a person in an insured crop existing by virtue of a lien, mortgage, garnishment, levy execution, bankruptcy, or an involuntary transfer shall not entitle the holder of the interest to any benefit under the contract except as provided in the policy.

#### § 426.5 Good faith reliance on misrepresentation.

Notwithstanding any other provision of the combined crop insurance contract, whenever (a) an insured person under a contract of crop insurance entered into under these regulations, as a result of a misrepresentation or other erroneous action or advice by an agent or employee of the Corporation, (1) is indebted to the Corporation for additional premiums, or (2) has suffered a loss to a crop which is not insured or for which the insured person is not entitled to an indemnity because of failure to comply with the terms of the insurance contract, but which the insured person believed to be insured, or believed the terms of the insurance contract to have been complied with or waived, and (b) the Board of Directors of the Corporation, or the Manager in cases involving not more than \$20,000, finds (1) that an agent or employee of the Corporation did in fact make such misrepresentation or take other erroneous action or give erroneous advice, (2) that said insured person relied thereon in good faith and (3) that to require the payment of the additional premiums or to deny such insured's entitlement to the indemnity would not

be fair and equitable, such insured person shall be granted relief the same as if otherwise entitled thereto.

#### § 426.6 The contract.

(a) The contract shall cover the insurable crops as provided in the applicable crop policies. The contract shall consist of the combined crop insurance policy, the applicable crop policies and appendixes, and the provisions of the county actuarial table which specify the crops that are applicable to the combined crop policy. Any changes made in the contract shall not affect its continuity from year to year. Copies of forms referred to in the contract are available at the office for the county.

#### § 426.7 The policy.

(a) In accordance with the provisions governing changes in the contract contained in policies issued under FCIC regulations for the 1969 and succeeding crop years, a contract in the form provided for under this subpart will come into effect as a continuation of a combined crop insurance contract issued under such prior regulations, without the filing of a new application.

(b) The provisions of the Combined Crop Insurance Policy for the 1980 and succeeding crop years are as follows:

#### Combined Crop Insurance Policy

##### Terms and Conditions

1. As to each insured crop, the provisions for that crop contained in the individual policy and appendix for such crop on file in the office for the county shall apply except as provided otherwise herein. In addition, for the purpose of combined crop insurance, those parts of the individual policies which refer to individual crops shall be considered to mean all crops insured under this policy.

2. (a) In addition to section 2. of the applicable individual crop policies, the following shall apply: "The crops insured are all of the crops for which production guarantees and premium rates are shown on the county actuarial table for combined crop insurance, and which are grown on insured acreage."

(b) Insurance shall not be considered to have attached to any acreage of rye for any crop year when the contract is canceled or terminated for indebtedness for that crop year.

3. In lieu of subsection 8(b) of the Terms and Conditions of the applicable individual crop policies, the following shall apply: "Indemnities shall be determined separately for each unit. The amount of indemnity with respect to any unit shall be determined in the following manner: (a) for each insured crop on the unit, multiply the insured acreage by the product of the applicable commodity production guarantee per acre, times the insured interest, times the applicable price for computing indemnities, (b) for each insured crop on the unit multiply the product

of the total production to be counted times the insured interest times the applicable price for computing indemnities, (c) add the dollar amounts obtained for each of the respective insured crops in (a) above, and (d) add the dollar amounts obtained for each of the respective insured crops in (b) above, and subtract this sum from the sum obtained in (c) above. *Provided*, That if the premium computed on the insured acreage and share is more than the premium computed on the reported acreage and share, the amount of indemnity shall be computed on the insured acreage and share and then reduced proportionately.

4. In lieu of section 5 of the Terms and Conditions of the applicable individual crop policies, the following shall apply:

(a) The annual premium is earned and payable at the time of seeding or planting and the amount thereof shall be determined for each unit by multiplying the applicable diversification factor(s) times the applicable premium factor(s), times the premium adjustment percentage in subsection (c) of this section.

(b) For premium adjustment purposes, only the years during which premiums were earned shall be considered.

(c) The premium shall be adjusted as shown in the following table:

BILLING CODE 3410-08-M

% ADJUSTMENTS FOR FAVORABLE CONTINUOUS INSURANCE EXPERIENCE																
	Numbers of Years Continuous Experience Through Previous Year															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 or more
Loss Ratio <sup>1/</sup> Through Previous Crop Year	Percentage Adjustment Factor For Current Crop Year															
.00 - .20	100	95	95	90	90	85	80	75	70	70	65	65	60	60	55	50
.21 - .40	100	100	95	95	90	90	90	85	80	80	75	75	70	70	65	60
.41 - .60	100	100	95	95	95	95	95	90	90	90	85	85	80	80	75	70
.61 - .80	100	100	95	95	95	95	95	95	90	90	90	90	85	85	85	80
.81 - 1.09	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% ADJUSTMENTS FOR UNFAVORABLE INSURANCE EXPERIENCE																
	Number of Loss Years Through Previous Year <sup>2/</sup>															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Loss Ratio <sup>1/</sup> Through Previous Crop Year	Percentage Adjustment Factor For Current Crop Year															
1.10 - 1.19	100	100	100	102	104	106	108	110	112	114	116	118	120	122	124	126
1.20 - 1.39	100	100	100	104	108	112	116	120	124	128	132	136	140	144	148	152
1.40 - 1.69	100	100	100	108	116	124	132	140	148	156	164	172	180	188	196	204
1.70 - 1.99	100	100	100	112	122	132	142	152	162	172	182	192	202	212	222	232
2.00 - 2.49	100	100	100	116	128	140	152	164	176	188	200	212	224	236	248	260
2.50 - 3.24	100	100	100	120	134	148	162	176	190	204	218	232	246	260	274	288
3.25 - 3.99	100	100	105	124	140	156	172	188	204	220	236	252	268	284	300	300
4.00 - 4.99	100	100	110	128	146	164	182	200	218	236	254	272	290	300	300	300
5.00 - 5.99	100	100	115	132	152	172	192	212	232	252	272	292	300	300	300	300
6.00 - Up	100	100	120	136	158	180	202	224	246	268	290	300	300	300	300	300

<sup>1/</sup> Loss Ratio means the ratio of indemnity(ies) paid to premium(s) earned.

<sup>2/</sup> Only the most recent 15 crop years will be used to determine the number of "Loss Years" (A crop year is determined to be a "Loss Year" when the amount of indemnity for the year exceeds the premium for the year).

5. In lieu of subsection 12(c) of the Terms and Conditions of the applicable individual crop policies, the following shall apply: Following are the cancellation and termination dates:

Counties	Cancellation date	Termination date for indebtedness
All counties	Dec. 31	March 31

6. Section 4 of the applicable crop appendixes will not be applicable to combined crop insurance.

7. For the purpose of combined crop insurance the term:

(a) "Actuarial table," in lieu of section 1(a) of the Appendix to the applicable individual crop policies, means the forms and related material for the crop year approved by the Corporation which are on file for public inspection in the office for the country, which show the production guarantees, coverage levels, premium factors, dollar coverage per acre, applicable prices for computing indemnities, the applicable diversification factor table, insurable and uninsurable acreage, and related information regarding combined crop insurance in the country,

(b) "Diversification factor" means a factor applied to reduce the premium when there is a diversity of crops seeded. The factor is provided on the county actuarial table.

(c) "Insurance unit," notwithstanding that portion of the first sentence preceding item (1) of section (k) of the Appendix to the applicable individual crop policies, means all insurable acreage of all insured crops in the county at the time of seeding. Otherwise, the provisions of section (k) of the Appendix to the applicable individual crop policies apply to combined crop insurance.

(d) "Premium factor" means the factor provided on the county actuarial table for use in determining the premium.

#### Appendix

##### Counties Designated for Combined Crop Insurance—7 CFR 426

In accordance with the provisions of 7 CFR 426.1, the following counties are designated for combined crop insurance:

State and county and crop(s)

North Dakota:

- Barnes—Barley, flax, oats, rye, wheat.
- Grand Forks—Barley, Flax, oats, wheat.
- Pierce—Barley, flax, oats, rye, wheat.
- Ransom—Barley, flax, oats, wheat.
- Richland—Barley, flax, oats, rye, soybeans, wheat.
- Sargent—Barley, flax, oats, wheat.
- Steele—Barley, flax, oats, wheat.

These regulations have been reviewed under the USDA criteria established to implement Executive Order No. 12044, "Improving Government Regulations." A determination has been made that this

action should not be classified "significant" under those criteria. A Final Impact Statement has been prepared and is available from Peter F. Cole, Secretary, Federal Crop Insurance Corporation, Room 4088, South Building, U.S. Department of Agriculture, Washington, D.C., 20250.

Note.—The reporting requirements contained herein have been approved by the Office of Management and Budget in accordance with the Federal Reports Act of 1942, and OMB Circular No. A-40.

Dated: November 19, 1979.

Approved by:

Roy L. Alton,

Acting Manager.

[FR Doc. 79-36782 Filed 11-29-79; 8:45 am]

BILLING CODE 3410-08-M

## 7 CFR Parts 401 and 433

### Dry Bean Crop Insurance Regulations

**AGENCY:** Federal Crop Insurance Corporation.

**ACTION:** Final rule.

**SUMMARY:** This rule prescribes procedures for insuring dry bean crops effective with the 1980 crop year. The rule combines provisions from previous regulations for insuring dry beans in a shorter, clearer, and more simplified document which will make the program more effective administratively. This rule is promulgated under the authority contained in the Federal Crop Insurance Act, as amended.

**EFFECTIVE DATE:** November 29, 1979.

**FOR FURTHER INFORMATION CONTACT:** Peter F. Cole, Secretary, Federal Crop Insurance Corporation, U.S. Department of Agriculture, Washington, DC, 20250, telephone 202-447-3325.

**SUPPLEMENTARY INFORMATION:** The Federal Crop Insurance Corporation (FCIC) published a notice of proposed rulemaking in the Federal Register on September 21, 1979 (44 FR 54711), outlining prescribed procedures for insuring dry bean crops effective with the 1980 crop year. In the notice, FCIC, under the authority contained in the Federal Crop Insurance Act, as amended (7 U.S.C. 1501 *et seq.*), proposed that a new Part 433 of Chapter IV in Title 7 of the Code of Federal Regulations be established to prescribe procedures for insuring dry bean crops effective with the 1980 crop year to be known as 7 CFR Part 433 Dry Bean Crop Insurance.

All previous regulations applicable to insuring dry bean crops, as found in 7 CFR 401.101-401.111, and 401.127, are not applicable to 1980 and succeeding dry bean crops but remain in effect for FCIC dry bean insurance policies issued for the crop years prior to 1980.

It has been determined that combining all previous regulations for insuring dry bean crops into one shortened, simplified, and clearer regulation would be more effective administratively.

In addition, 7 CFR Part 433 provides (1) for a Premium Adjustment Table which replaces the current premium discount provisions and includes a maximum 50 percent premium reduction for good insurance experience, as well as premium increases for unfavorable experience, on an individual contract basis, (2) that the production guarantee will now be shown on a harvested basis with a reduction of the lesser of 150 pounds or 15 percent of the guarantee for any unharvested acreage, (3) that any premium not paid by the termination date will be increased by a 9 percent service fee with a 9 percent simple interest charge applying to any unpaid balances at the end of each subsequent 12-month period thereafter, (4) that the time period for submitting a notice of loss be extended from 15 days to 30 days, (5) that the 60-day time period for filing a claim be eliminated, (6) that three coverage level options be offered in each county, (7) for reductions for moisture when production is above 18 percent moisture and is otherwise of good quality, and (8) for an increase in the limitation from \$5,000 to \$20,000 in those cases involving good faith reliance on misrepresentation, as found in 7 CFR Part 433.5 of these regulations, wherein the Manager of the Corporation is authorized to take action to grant relief.

The Dry Bean Crop Insurance regulations provide a December 31 cancellation date. These regulations, and any amendments thereto, must be placed on file in the Corporation's office for the county in which the insurance is available not later than 15 days prior to the cancellation date of December 31, 1980, before they become effective for the 1980 crop year.

Under the provisions of Executive Order No. 12044, and the Administrative Procedure Act (5 U.S.C. 553 (b) and (c)), the public was given an opportunity to submit written comments, data, and views on the proposed regulations, but none were received.

Therefore, with the exception of minor and nonsubstantive corrections to language, the regulations as contained in the proposed rule are hereby issued as a

final rule to be in effect starting with the 1980 crop year.

In addition, there is hereby added to the final rule an Appendix "B", which lists the counties where dry bean crop insurance is available in accordance with the provisions of 7 CFR 433.1 outlined below which state in part that "before insurance is offered in any county there shall be published by appendix to this part the names of the counties in which such insurance shall be offered."

Inasmuch as the publication of the list of counties and crops insured by the Federal Crop Insurance Corporation as contained in Appendix "B" merely provides guidance for the general public and has no effect on the provisions of the insurance plan, the Corporation has determined that compliance with the procedure for notice and public participation in the proposed rulemaking process would be impracticable, unnecessary, and contrary to the public interest. Therefore, Appendix "B" is issued without compliance with such procedure.

#### Final Rule

#### § 401.127 [Reserved]\*

Accordingly, pursuant to the authority contained in the Federal Crop Insurance Act, as amended (7 U.S.C. 1501 *et seq.*), the Federal Crop Insurance Corporation hereby deletes and reserves 7 CFR 401.127, with the provisions as contained therein remaining in effect for FCIC insurance policies issued for crop years prior to 1980, and issues a new Part 433 in Chapter IV of Title 7 of the Code of Federal Regulations (7 CFR Part 433) to be known as the Dry Bean Crop Insurance Regulations, which shall remain in effect, until amended or superseded, for the 1980 and succeeding crop years, to read as follows:

### PART 433—DRY BEAN CROP INSURANCE

#### Subpart—Regulations for the 1980 and Succeeding Crop Years

##### Sec.

- 433.1 Availability of dry bean insurance.
- 433.2 Premium rates, production guarantees, coverage levels, and prices at which indemnities shall be computed.
- 433.3 Public notice of indemnities paid.
- 433.4 Creditors.
- 433.5 Good faith reliance on misrepresentation.
- 433.6 The contract.
- 433.7 The application and policy.

Authority: Secs. 506, 516, 52 Stat. 73, as amended, 77 as amended (7 U.S.C. 1506, 1516).

#### § 433.1 Availability of dry bean insurance.

Insurance shall be offered under the provisions of this subpart on dry beans in counties within limits prescribed by and in accordance with the provisions of the Federal Crop Insurance Act, as amended. The counties shall be designated by the Manager of the Corporation from those approved by the Board of Directors of the Corporation. Before insurance is offered in any county, there shall be published by appendix to this part the names of the counties in which dry bean insurance will be offered.

#### § 433.2 Premium rates, production guarantees, coverage levels, and prices at which indemnities shall be computed.

(a) The Manager shall establish premium rates, production guarantees, coverage levels, and prices at which indemnities shall be computed for dry beans which shall be shown on the county actuarial table on file in the office for the county and may be changed from year to year.

(b) At the time the application for insurance is made, the applicant shall elect a coverage level and price at which indemnities shall be computed from among those levels and prices shown on the actuarial table for the crop year.

#### § 433.3 Public notice of indemnities paid.

The Corporation shall provide for posting annually in each county at each county courthouse a listing of the indemnities paid in the county.

#### § 433.4 Creditors.

An interest of a person in an insured crop existing by virtue of a lien, mortgage, garnishment, levy, execution, bankruptcy, or an involuntary transfer shall not entitle the holder of the interest to any benefit under the contract except as provided in the policy.

#### § 433.5 Good faith reliance on misrepresentation.

Notwithstanding any other provision of the dry bean insurance contract, whenever (a) an insured person under a contract of crop insurance entered into under these regulations, as a result of a misrepresentation or other erroneous action or advice by an agent or employee of the Corporation, (1) is indebted to the Corporation for additional premiums, or (2) has suffered a loss to a crop which is not insured or for which the insured person is not entitled to an indemnity because of failure to comply with the terms of the insurance contract, but which the insured person believed to be insured, or believed the terms of the insurance contract to have been complied with or waived, and (b) the Board of Directors

of the Corporation, or the Manager in cases involving not more than \$20,000, finds (1) that an agent or employee of the Corporation did in fact make such misrepresentation or take other erroneous action or give erroneous advice, (2) that said insured person relied thereon in good faith, and (3) that to require the payment of the additional premiums or to deny such insured's entitlement to the indemnity would not be fair and equitable, such insured person shall be granted relief the same as if otherwise entitled thereto.

#### § 433.6 The contract.

(a) The insurance contract shall become effective upon the acceptance by the Corporation of a duly executed application for insurance on a form prescribed by the Corporation. Such acceptance shall be effective upon the date the notice of acceptance is mailed to the applicant. The contract shall cover the dry bean crop as provided in the policy. The contract shall consist of the application, the policy, the attached appendix, and the provisions of the county actuarial table showing the production guarantees, coverage levels, premium rates, prices for computing indemnities, insurable and uninsurable acreage, and applicable dates. Any changes made in the contract shall not affect its continuity from year to year. Copies of forms referred to in the contract are available at the office for the county.

#### § 433.7 The application and policy.

(a) Application for insurance on a form prescribed by the Corporation may be made by any person to cover such person's insurable share in the dry bean crop as landlord, owner-operator, or tenant. The application shall be submitted to the Corporation at the office for the county on or before the applicable closing date on file in the office for the county.

(b) The Corporation reserves the right to discontinue the acceptance of applications in any county upon its determination that the insurance risk involved is excessive, and also, for the same reason, to reject any individual application. The Manager of the Corporation is authorized in any crop year to extend the closing date for submitting applications or contract changes in any county, by placing the extended date on file in the office for the county and publishing a notice in the *Federal Register* upon the Manager's determination that no adverse selectivity will result during the period of such extension: *Provided, however*, That if adverse conditions should develop during such period, the

Corporation will immediately discontinue the acceptance of applications.

(c) In accordance with the provisions governing changes in the contract contained in policies issued under FCIC regulations for the 1969 and succeeding crop years, a contract in the form provided for under this subpart will come into effect as a continuation of a dry bean contract issued under such prior regulations, without the filing of a new application.

(d) The provisions of the application and Dry Bean Insurance Policy for the 1980 and succeeding crop years, and the Appendix to the Dry Bean Insurance Policy are as follows:

#### U.S. Department of Agriculture

##### Federal Crop Insurance Corporation

Application for 19— and Succeeding Crop Years

Dry Bean

Crop Insurance Contract

(Contract No.) \_\_\_\_\_

(Identification No.) \_\_\_\_\_

(Name and address) (ZIP CODE)

(County) \_\_\_\_\_

(State) \_\_\_\_\_

Type of entity \_\_\_\_\_

Applicant is over 18 Yes—No—

A. The applicant, subject to the provisions of the regulations of the Federal Crop Insurance Corporation (herein called "Corporation"), hereby applies to the Corporation for insurance on the applicant's share in the dry beans planted on insurable acreage as shown on the county actuarial table for the above-stated county. The applicant elects from the actuarial table the coverage level and price at which indemnities shall be computed. **THE PREMIUM RATES AND PRODUCTION GUARANTEES SHALL BE THOSE SHOWN ON THE APPLICABLE COUNTY ACTUARIAL TABLE FILED IN THE OFFICE FOR THE COUNTY FOR EACH CROP YEAR.**

Level Election \_\_\_\_\_

Price Election \_\_\_\_\_

Example: For the 19— Crop Year Only (100% Share)

Location/farm No. \_\_\_\_\_

Guarantee per acre\* \_\_\_\_\_

Premium per acre\*\* \_\_\_\_\_

Practice \_\_\_\_\_

\*Your guarantee will be on a unit basis (acres per acre guarantee share)

\*\*Your premium is subject to adjustment in accordance with section 5(c) of the policy.

**B. WHEN NOTICE OF ACCEPTANCE OF THIS APPLICATION IS MAILED TO THE APPLICANT BY THE CORPORATION, the contract shall be in effect for the crop year specified above, unless the time for submitting applications has passed at the time this application is filed. AND SHALL CONTINUE FOR EACH SUCCEEDING CROP YEAR UNTIL CANCELLED OR**

**TERMINATED** as provided in the contract. This accepted application, the following dry bean insurance policy, the attached appendix, and the provisions of the county actuarial table showing the production guarantees, coverage levels, premium rates, prices for computing indemnities, and insurable and uninsurable acreage shall constitute the contract. Additional information regarding contract provisions can be found in the county regulations folder on file in the office for the county. No term or condition of the contract shall be waived or changed except in writing by the Corporation.

(Code No./witness to signature)

(Signature of applicant)

\_\_\_\_\_, 19—

(Date)

Address of office for county: \_\_\_\_\_

Phone \_\_\_\_\_

Location of farm headquarters: \_\_\_\_\_

Phone \_\_\_\_\_

Dry Bean Crop Insurance Policy

Terms and Conditions

Subject to the provisions in the attached appendix:

1. **CAUSES OF LOSS.** (a) Causes of loss insured against. The insurance provided is against unavoidable loss of production resulting from adverse weather conditions, insects, plant disease, wildlife, earthquake or fire occurring within the insurance period, subject to any exceptions, exclusions or limitations with respect to causes of loss shown on the actuarial table.

(b) Causes of loss not insured against. The contract shall not cover any loss of production, as determined by the Corporation, due to (1) the neglect or malfeasance of the insured, any member of the insured's household, the insured's tenants or employees, (2) failure to follow recognized good farming practices, (3) damage resulting from the backing up of water by any governmental or public utilities dam or reservoir project, or (4) any cause not specified as an insured cause in this policy as limited by the actuarial table.

2. **CROP AND ACREAGE INSURED.**

(a) The crop insured shall be dry beans (hereinafter called "beans") and shall consist of (1) dry edible beans of a class shown as insurable on the actuarial table for the county, planted on insurable acreage for harvest as dry beans, as determined by the Corporation, or (2) bush varieties of garden seed beans planted on insurable acreage for harvest as seed and grown under a contract executed with a seed company by the time the acreage to be

insured is reported. Where such contract provides that the grower's compensation is to be computed solely on the basis of a rate per unit of production, the grower, and not the seed company, shall be considered to have the insurable interest notwithstanding that the legal title to the crop may be held by the seed company.

(b) The acreage insured for each crop year shall be that acreage planted to beans on insurable acreage as shown on the actuarial table, and the insured's share therein as reported by the insured or as determined by the Corporation, whichever the Corporation shall elect: *Provided*, That insurance shall not attach or be considered to have attached, as determined by the Corporation, to any acreage (1) of bush varieties of garden seed beans which are not grown under a contract as referred to in section 2(a) above, or any acreage excluded from such contract for the crop year pursuant to the terms thereof, (2) where premium rates are established by farming practices on the actuarial table, and the farming practices carried out on such acreage are not among those for which a premium rate has been established, (3) not reported for insurance as provided in section 3 if such acreage is irrigated and an irrigated practice is not provided for such acreage on the actuarial table, (4) which is destroyed and after such destruction it was practical to replant to dry beans and such acreage was not replanted, (5) initially planted after the date on file in the office for the county which has been established by the Corporation as being too late to initially plant and expect a normal crop to be produced, (6) of volunteer beans, (7) planted to a class of dry edible beans or a bush variety of garden seed beans not established as adapted to the area or shown as noninsurable on the actuarial table, or (8) planted with another crop.

(c) Any acreage of the insured crop which is destroyed and replanted to either dry edible beans referred to in section 2(a)(1) or bush varieties of garden seed beans referred to in section 2(a)(2) shall, if otherwise insurable hereunder, be regarded as insured acreage and not as acreage put to another use.

(d) Insurance may attach only by written agreement with the Corporation on acreage which is planted for the development or production of hybrid seed or for experimental purposes.

3. **RESPONSIBILITY OF INSURED TO REPORT ACREAGE AND SHARE.** The insured shall submit to the Corporation on a form prescribed by the Corporation, a report showing (a) all acreage of beans planted in the county (including a designation of any acreage to which

insurance does not attach) in which the insured has a share and (b) the insured's share therein at the time of planting. Such report shall be submitted each year not later than the acreage reporting date on file in the office for the county.

**4. PRODUCTION GUARANTEES, COVERAGE LEVELS, AND PRICES FOR COMPUTING INDEMNITIES.** (a)

For each crop year of the contract, the production guarantees, coverage levels, and prices at which indemnities shall be computed shall be those shown on the actuarial table.

(b) The production guarantee per acre shall be reduced by the lesser of 150 pounds or 15 percent for any unharvested acreage.

(c) Notwithstanding the provisions of this section of the policy and section 8 of the appendix, the price per pound at which indemnities shall be computed for bush varieties of garden seed beans shall be the applicable price per pound (1) shown on the actuarial table for this purpose or (2) provided in the contract with the seed company, whichever is the lesser.

**5. ANNUAL PREMIUM.** (a) The annual premium is earned and payable at the time of planting and the amount thereof shall be determined by multiplying the insured acreage times the applicable premium per acre, times the insured's share at the time of planting, times the applicable premium adjustment percentage in subsection (c) of this section.

(b) For premium adjustment purposes, only the years during which premiums were earned shall be considered.

(c) The premium shall be adjusted as shown in the following table:

% ADJUSTMENTS FOR FAVORABLE CONTINUOUS INSURANCE EXPERIENCE																
Loss Ratio <sup>1/</sup> Through Previous Crop Year	Numbers of Years Continuous Experience Through Previous Year															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 or more
Loss Ratio <sup>1/</sup> Through Previous Crop Year	Percentage Adjustment Factor For Current Crop Year															
.00 - .20	100	95	95	90	90	85	80	75	70	70	65	65	60	60	55	50
.21 - .40	100	100	95	95	90	90	90	85	80	80	75	75	70	70	65	60
.41 - .60	100	100	95	95	95	95	95	90	90	90	85	85	80	80	75	70
.61 - .80	100	100	95	95	95	95	95	95	90	90	90	90	85	85	85	80
.81 - 1.09	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
% ADJUSTMENTS FOR UNFAVORABLE INSURANCE EXPERIENCE																
Loss Ratio <sup>1/</sup> Through Previous Crop Year	Number of Loss Years Through Previous Year <sup>2/</sup>															
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Loss Ratio <sup>1/</sup> Through Previous Crop Year	Percentage Adjustment Factor For Current Crop Year															
1.10 - 1.19	100	100	100	102	104	106	108	110	112	114	116	118	120	122	124	126
1.20 - 1.39	100	100	100	104	108	112	116	120	124	128	132	136	140	144	148	152
1.40 - 1.69	100	100	100	108	116	124	132	140	148	156	164	172	180	188	196	204
1.70 - 1.99	100	100	100	112	122	132	142	152	162	172	182	192	202	212	222	232
2.00 - 2.49	100	100	100	116	128	140	152	164	176	188	200	212	224	236	248	260
2.50 - 3.24	100	100	100	120	134	148	162	176	190	204	218	232	246	260	274	288
3.25 - 3.99	100	100	105	124	140	156	172	188	204	220	236	252	268	284	300	300
4.00 - 4.99	100	100	110	128	146	164	182	200	218	236	254	272	290	300	300	300
5.00 - 5.99	100	100	115	132	152	172	192	212	232	252	272	292	300	300	300	300
6.00 - Up	100	100	120	136	158	180	202	224	246	268	290	300	300	300	300	300

<sup>1/</sup> Loss Ratio means the ratio of indemnity(ies) paid to premium(s) earned.

<sup>2/</sup> Only the most recent 15 crop years will be used to determine the number of "Loss Years" (A crop year is determined to be a "Loss Year" when the amount of indemnity for the year exceeds the premium for the year).

(d) Any amount of premium for an insured crop which is unpaid on the day following the termination date for indebtedness for such crop shall be increased by a 9 percent service fee, which increased amount shall be the premium balance, and thereafter, at the end of each 12-month period, 9 percent simple interest shall attach to any amount of the premium balance which is unpaid: *Provided*, When notice of loss has been timely filed by the insured as provided in section 7 of this policy, the service fee will not be charged and the contract will remain in force if the premium is paid in full within 30 days after the date of approval or denial of the claim for indemnity: *however*, if any premium remains unpaid after such date, the contract will terminate and the amount of premium outstanding shall be increased by a 9 percent service fee, which increased amount shall be the premium balance. If such premium balance is not paid within 12 months immediately following the termination date, 9 percent simple interest shall apply from the termination date and each year thereafter to any unpaid premium balance.

(e) Any unpaid amount due the Corporation may be deducted from any indemnity payable to the insured by the Corporation or from any loan or payment to the insured under any Act of Congress or program administered by the U.S. Department of Agriculture, when not prohibited by law.

6. INSURANCE PERIOD. Insurance on insured acreage shall attach at the time the beans are planted and shall cease upon the earliest of (a) final adjustment of a loss, (b) harvesting or removal of the dry beans from the field, (c) November 15 of the calendar year in which the bean crop is normally harvested, or (d) total destruction of the insured dry bean crop.

#### 7. NOTICE OF DAMAGE OR LOSS.

(a) Any notice of damage or loss shall be given promptly in writing by the insured to the Corporation at the office for the county.

(b) Notice shall be given promptly if, during the period before harvest, the dry beans on any unit are damaged to the extent that the insured does not expect to further care for the crop or harvest any part of it, or if the insured wants the consent of the Corporation to put the acreage to another use. No insured acreage shall be put to another use until the Corporation has made an appraisal of the potential production of such acreage and consents in writing to such other use. Such consent shall not be given until it is too late or impractical to replant to beans. Notice shall also be

given when such acreage has been put to another use.

(c) In addition to the notices required in subsection (b) of this section, if an indemnity is to be claimed on any unit, the insured shall give written notice thereof to the Corporation at the office for the county not later than 30 DAYS after the earliest of (1) the date harvest is completed on the unit, (2) the calendar date for the end of the insurance period, or (3) the date the entire bean crop on the unit is destroyed, as determined by the Corporation. The Corporation reserves the right to provide additional time if it determines there are extenuating circumstances.

(d) Any insured acreage which is not to be harvested and upon which an indemnity is to be claimed shall be left intact until inspected by the Corporation.

(e) The Corporation may reject any claim for indemnity if any of the requirements of this section are not met.

8. CLAIM FOR INDEMNITY. (a) It shall be a condition precedent to the payment of any indemnity that the insured (1) establish the total production of beans on the unit and that any loss of production was directly caused by one or more of the insured causes during the insurance period for the crop year for which the indemnity is claimed and (2) furnish any other information regarding the manner and extent of loss as may be required by the Corporation.

(b) Indemnities shall be determined separately for each unit.

(1) The amount of indemnity for any dry edible bean unit shall be determined by (i) multiplying the insured acreage of beans on the unit by the applicable production guarantee per acre, which product shall be the production guarantee for the unit, (ii) subtracting therefrom the total production of beans to be counted for the unit, (iii) multiplying the remainder by the applicable price for computing indemnities, and (iv) multiplying the result obtained in step (iii) by the insured share.

(2) The amount of indemnity for any unit of bush varieties of garden seed beans shall be determined by subtracting the value of production from the dollar amount of insurance and multiplying the remainder by the insured share. The value of production is obtained by multiplying, by variety, the total production to be counted by the applicable price per pound at which indemnities shall be computed (i) as shown on the actuarial table or (ii) as provided in the contract with the seed company, whichever is the lesser. The dollar amount of insurance is obtained by multiplying, by variety, the

applicable production guarantee per acre by the insured acreage, and the result by the applicable price per pound, at which indemnities shall be computed, (i) as shown on the actuarial table or (ii) as provided in the contract with the seed company, whichever is the lesser.

(c) If the premium computed on the insured acreage and share is more than the premium computed on the reported acreage and share on any unit, the amount of indemnity for such unit shall be computed on the insured acreage and share and then reduced proportionately.

(d) The total production to be counted for a unit shall be determined by the Corporation and shall include all harvested and appraised production.

(1) The production to be counted of any threshed dry edible beans of the classes of pea and medium white with a pick in excess of 4 percent and of any other classes which do not grade No. 2 or better (*determined in accordance with the Official United States Standards for beans*), shall be adjusted by multiplying the number of pounds of such damaged dry edible beans by the conversion factor shown on the actuarial table for the applicable grade or pick: *Provided, however*, That if, due to insurable causes, any such damaged dry edible beans do not meet any U.S. Grade or pick shown on the actuarial table, and would not meet these requirements if properly handled, or if, in the absence of conversion factors on the actuarial table any threshed dry edible beans do not grade U.S. No. 2 or better because of poor quality due to insurable causes, the production to be counted for such damaged beans shall be adjusted by (i) dividing the value of the damaged beans per hundredweight, as determined by the Corporation, by the market price per hundredweight at the local market for beans of the applicable class grading No. 2 (*except that for the classes pea and medium white the market price per hundredweight at the local market for beans of these classes with a 4 percent pick shall be used*), and (ii) multiplying the result thus obtained by the number of pounds of such damaged beans. The market price per hundredweight to be used herein shall be the local market price on the earlier of: the day the loss is adjusted or the day the damaged dry edible beans are sold.

(2) Mature dry edible bean production which is not eligible for quality adjustment under section 8(d)(1) above shall be reduced .12 percent for each .1 percentage point of moisture in excess of 18 percent.

(3) Appraised production to be counted shall include: (i) Any appraisals by the Corporation for potential

production on harvested acreage and for uninsured causes and poor farming practices, (ii) not less than the applicable guarantee for any acreage which is abandoned or put to another use without prior written consent of the Corporation or damaged solely by an uninsured cause, and (iii) only the appraisal in excess of the lesser of 150 pounds or 15 percent of the production guarantee for all other unharvested acreage.

(4) The appraised potential production for acreage for which consent has been given to be put to another use shall be counted as production in determining the amount of loss under the contract. However, if consent is given to put acreage to another use and the Corporation determines that any such acreage (i) is not put to another use before harvest of beans becomes general in the county, (ii) is harvested, or (iii) is further damaged by an insured cause before the acreage is put to another use, the indemnity for the unit shall be determined without regard to such appraisal and consent.

**9. MISREPRESENTATION AND FRAUD.** The Corporation may void the contract without affecting the insured's liability for premiums or waiving any right, including the right to collect any unpaid premiums if, at any time, the insured has concealed or misrepresented any material fact or committed any fraud relating to the contract, and such voidance shall be effective as of the beginning of the crop year with respect to which such act or omission occurred.

**10. TRANSFER OF INSURED SHARE.** If the insured transfers any part of the insured share during the crop year, protection will continue to be provided according to the provisions of the contract to the transferee for such crop year on the transferred share, and the transferee shall have the same rights and responsibilities under the contract as the original insured for the current crop year. Any transfer shall be made on an approved form.

**11. RECORDS AND ACCESS TO FARM.** The insured shall keep or cause to be kept for two years after the time of loss, records of the harvesting, storage, shipments, sale or other disposition of all beans produced on each unit including separate records showing the same information for production from any uninsured acreage. Any persons designated by the Corporation shall have access to such records and the farm for purposes related to the contract.

**12. LIFE OF CONTRACT: CANCELLATION AND TERMINATION.**

(a) The contract shall be in effect for the

crop year specified on the application and may not be canceled for such crop year. Thereafter, either party may cancel the insurance for any crop year by giving a signed notice to the other on or before the cancellation date preceding such crop year.

(b) Except as provided in section 5(d) of this policy, the contract will terminate as to any crop year if any amount due the Corporation under this contract is not paid on or before the termination date for indebtedness preceding such crop year: *Provided*, That the date of payment for premium (1) if deducted from an indemnity claim shall be the date the insured signs such claim or (2) if deducted from payment under another program administered by the U.S. Department of Agriculture, shall be the date such payment was approved.

(c) Following are the cancellation and termination dates:

State	Cancellation date	Termination date for indebtedness
All States.....	Dec. 31	Mar. 31

(d) In the absence of a notice from the insured to cancel, and subject to the provisions of subsections (a), (b), and (c) of this section, and section 7 of the Appendix, the contract shall continue in force for each succeeding crop year.

#### Appendix—(Additional Terms and Conditions)

**1. MEANING OF TERMS.** For the purposes of dry bean crop insurance:

(a) "Actuarial table" means the forms and related material for the crop year approved by the Corporation which are on file for public inspection in the office for the county, and which show the production guarantees, coverage levels, premium rates, prices for computing indemnities, insurable and uninsurable acreage, and related information regarding bean insurance in the county.

(b) "County" means the county shown on the application and any additional land located in a local producing area bordering on the county, as shown on the actuarial table.

(c) "Crop year" means the period within which the bean crop is normally grown and shall be designated by the calendar year in which the bean crop is normally harvested.

(d) "Harvest" means the threshing or combining of mature beans from the land.

(e) "Insurable acreage" means the land classified as insurable by the Corporation and shown as such on the county actuarial table.

(f) "Insured" means the person who submitted the application accepted by the Corporation.

(g) "Office for the county" means the Corporation's office serving the county shown on the application for insurance or such office as may be designated by the Corporation.

(h) "Person" means an individual, partnership, association, corporation, estate, trust, or other business enterprise or legal entity, and wherever applicable, a State, a political subdivision of a State, or any agency thereof.

(i) "Pick" means the percentage, on a weight basis, of the defects such as splits, damaged (including discolored) beans, contrasting class(es) and foreign material remaining in the beans after dockage has been removed by the proper use of screens or sieves.

(j) "Share" means the interest of the insured as landlord, owner-operator, or tenant in the insured bean crop at the time of planting as reported by the insured or as determined by the Corporation, whichever the Corporation shall elect, and no other share shall be deemed to be insured: *Provided*, That for the purpose of determining the amount of indemnity, the insured share shall not exceed the insured's share at the earliest of (1) the date of beginning of harvest on the unit, (2) the calendar date for the end of the insurance period, or (3) the date the entire crop on the unit is destroyed, as determined by the Corporation.

(k) "Tenant" means a person who rents land from another person for a share of the bean crop or proceeds therefrom.

(l) "Unit" means respectively, all insurable acreage of (1) dry edible beans, or (2) bush varieties of garden seed beans in the county on the date of planting for the crop year in which the insured has a 100 percent share, or which is owned by one entity and operated by another entity on a share basis. Land rented for cash, a fixed commodity payment, or any consideration other than a share in the bean crop on such land shall be considered as owned by the lessee. Land which would otherwise be one unit may be divided according to applicable guidelines on file in the office for the county or by written agreement between the Corporation and the insured. The Corporation shall determine units as herein defined when adjusting a loss, notwithstanding what is shown on the acreage report, and has the right to consider any acreage and share reported by or for the insured's spouse or child or any member of the insured's household to be the bona fide share of the insured

or any other person having the bona fide share.

2. **ACREAGE INSURED.** (a) The Corporation reserves the right to limit the insured acreage of beans to any acreage limitations established under any Act of Congress, provided the insured is so notified in writing prior to the planting of beans.

(b) If the insured does not submit an acreage report on or before the acreage reporting date on file in the office for the county, the Corporation may elect to determine by units the insured acreage and share or declare the insured acreage on any unit(s) to be "zero." If the insured does not have a share in any insured acreage in the county for any year, the insured shall submit a report so indicating. Any acreage report submitted by the insured may be revised only upon approval of the Corporation.

3. **IRRIGATED ACREAGE.** (a) Where the actuarial table provides for insurance on an irrigated practice, the insured shall report as irrigated only the acreage for which the insured has adequate facilities and water to carry out a good irrigation practice at the time of planting.

(b) Where irrigated acreage is insurable, any loss of production caused by failure to carry out a good irrigation practice, except failure of the water supply from an unavoidable cause occurring after the beginning of planting, as determined by the Corporation, shall be considered as due to an uninsured cause. The failure or breakdown of irrigation equipment or facilities shall not be considered as a failure of the water supply from an unavoidable cause.

4. **ANNUAL PREMIUM.** (a) If there is no break in the continuity of participation, any premium adjustment applicable under section 5 of the policy shall be transferred to (1) the contract of the insured's estate or surviving spouse in case of death of the insured, (2) the contract of the person who succeeds the insured if such person had previously participated in the farming operation, or (3) the contract of the same insured who stops farming in one county and starts farming in another county.

(b) If there is a break in the continuity of participation, any reduction in premium earned under section 5 of the policy shall not thereafter apply; however, any previous unfavorable insurance experience shall be considered in premium computation following a break in continuity.

5. **CLAIM FOR AND PAYMENT OF INDEMNITY.** (a) Any claim for indemnity on a unit shall be submitted to the Corporation on a form prescribed by the Corporation.

(b) In determining the total production to be counted for each unit, production from units on which the production has been commingled will be allocated to such units in proportion to the liability on each unit.

(c) There shall be no abandonment to the Corporation of any insured bean acreage.

(d) In the event that any claim for indemnity under the provisions of the contract is denied by the Corporation, an action on such claim may be brought against the Corporation under the provisions of 7 U.S.C. 1508(c); *Provided*, That the same is brought within one year after the date notice of denial of the claim is mailed to and received by the insured.

(e) Any indemnity will be payable within 30 days after a claim for indemnity is approved by the Corporation. *However*, in no event shall the Corporation be liable for interest or damages in connection with any claim for indemnity whether such claim be approved or disapproved by the Corporation.

(f) If the insured is an individual who dies, disappears, or is judicially declared incompetent, or the insured is an entity other than an individual and such entity is dissolved after the beans are planted for any crop year, any indemnity will be paid to the person(s) the Corporation determines to be beneficially entitled thereto.

(g) The Corporation reserves the right to reject any claim for indemnity if any of the requirements of this section or section 8 of the policy are not met and the Corporation determines that the amount of loss cannot be satisfactorily determined.

6. **SUBROGATION.** The insured (including any assignee or transferee) assigns to the Corporation all rights of recovery against any person for loss or damage to the extent that payment hereunder is made by the Corporation. The Corporation thereafter shall execute all papers required and take appropriate action as may be necessary to secure such rights.

7. **TERMINATION OF THE CONTRACT.** (a) The contract shall terminate if no premium is earned for five consecutive years.

(b) If the insured is an individual who dies or is judicially declared incompetent, or the insured entity is other than an individual and such entity is dissolved, the contract shall terminate as of the date of death, judicial declaration, or dissolution; *however*, if such event occurs after insurance attaches for any crop year, the contract shall continue in force through such crop year and terminate at the end thereof.

Death of a partner in a partnership shall dissolve the partnership unless the partnership agreement provides otherwise. If two or more persons having a joint interest are insured jointly, death of one of the persons shall dissolve the joint entity.

8. **COVERAGE LEVEL AND PRICE ELECTION.** (a) If the insured has not elected on the application a coverage level and price at which indemnities shall be computed from among those shown on the actuarial table, the coverage level and price election which shall be applicable under the contract, and which the insured shall be deemed to have elected, shall be as provided on the actuarial table for such purposes.

(b) The insured may, with the consent of the Corporation, change the coverage level and/or price election for any crop year on or before the closing date for submitting applications for that crop year.

9. **ASSIGNMENT OF INDEMNITY.** Upon approval of a form prescribed by the Corporation, the insured may assign to another party the right to an indemnity for the crop year and such assignee shall have the right to submit the loss notices and forms as required by the contract.

10. **CONTRACT CHANGES.** The Corporation reserves the right to change any terms and provisions of the contract from year to year. Any changes shall be mailed to the insured or placed on file and made available for public inspection in the office for the county at least 15 days prior to the cancellation date preceding the crop year for which the changes are to become effective, and such mailing or filing shall constitute notice to the insured. Acceptance of any changes will be conclusively presumed in the absence of any notice from the insured to cancel the contract as provided in section 12 of the policy.

#### Appendix "B"

*Counties designated for Dry Bean Crop Insurance—7 CFR Part 433*

In accordance with the provisions of 7 CFR 433.1, the following counties are designated for dry bean crop insurance:

State and county	Class(es) of dry beans insured
COLORADO	
Boulder.....	Pinto.
Kit Carson.....	Do.
Larimer.....	Do.
Logan.....	Do.
Morgan.....	Do.
Phillips.....	Do.
Sedgwick.....	Do.
Washington.....	Do.
Weld.....	Do.
Yuma.....	Do.

State and county	Class(es) of dry beans insured
IDAHO	
Ada	Pinto
Canyon	Great northern, pink, pinto, red kidney, small red. <sup>1</sup>
Cassia	Do. <sup>1</sup>
Gooding	Do. <sup>1</sup>
Jerome	Do. <sup>1</sup>
Lincoln	Do.
Minidoka	Do. <sup>1</sup>
Owyhee	Do.
Twin Falls	Do. <sup>1</sup>
KANSAS	
Sherman	Pinto.
MICHIGAN	
Bay	Pea and medium white, light and dark red kidney, cranberry, turtle, pinto.
Genesee	Do.
Gratiot	Do.
Huron	Do.
Saginaw	Do.
Sanilac	Do.
Shiawassee	Do.
Tuscola	Do.
NEBRASKA	
Box Butte	Great northern, pink, pinto.
Morrill	Do.
Scotts Bluff	Do.
Sheridan	Do.
WASHINGTON	
Adams	Great northern, pink, pinto, small flat whites, small red.
Franklin	Do.
Grant	Do.
WYOMING	
Big Horn	Great northern, pinto.
Goshen	Do.
Park	Do.
Platte	Do.

<sup>1</sup>Insurance is also provided on bush varieties of garden seed beans.

These regulations have been reviewed under the USDA criteria established to implement Executive Order No. 12044, "Improving Government Regulations." A determination has been made that this action should not be classified "significant" under those criteria. A Final Impact Statement has been prepared and is available from Peter F. Cole, Secretary, Federal Crop Insurance Corporation, Room 4088, South Building, U.S. Department of Agriculture, Washington, D.C. 20250.

**Note.**—The reporting requirements contained herein have been approved by the Office of Management and Budget in accordance with the Federal Reports Act of 1942 and OMB Circular A-40.

Approved by the Board of Directors on September 6, 1979.

**Peter F. Cole,**  
Secretary, Federal Crop Insurance Corporation.

Dated: November 21, 1979.

Approved by:

**James D. Deal,**  
Manager.

[FR Doc. 79-36706 Filed 11-28-79; 8:45 am]

BILLING CODE 3410-08-M

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 79-GL-17-AD; Amdt. 39-3624]

#### Detroit Diesel Allison; AeroProducts Models A6441FN-606 and -606A Propeller Blades

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) which requires an interim inspection of Detroit Diesel Allison AeroProducts' propeller blades. The mandatory time of inspection is related to the time in service hours since the last inspection. This AD is being issued as a result of metallurgical examinations by the manufacturer that revealed blade fatigue cracks which could result in propeller blade separation.

**EFFECTIVE DATE:** December 5, 1979.

**ADDRESSES:** Copies of applicable Detroit Diesel Allison Commercial Service Letters CSL-240, -241, and -250 may be obtained by contacting Detroit Diesel Allison, Division of General Motors Corporation, P.O. Box 894, Indianapolis, Indiana 46206. Copies of the service information referenced in this AD are contained in the Rules Docket, Office of Regional Counsel, 2300 East Devon Avenue, Des Plaines, Illinois 60018; and at FAA Headquarters, Room 916, 800 Independence Avenue SW., Washington, D.C. 20591.

**FOR FURTHER INFORMATION CONTACT:** Cornelius Biemond, Engineering and Manufacturing Branch, AGL-217, Flight Standards Division, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018, telephone (312) 694-4500, extension 359.

**SUPPLEMENTARY INFORMATION:** Detroit Diesel Allison (DDA) has accumulated information from metallurgical examinations that reveals propeller blade integral race cracks emanating from spalls. These cracks can turn inward radially towards the blade shank centerline. If not inspected and detected at proper intervals, these cracks could lead to propeller blade separation. This AD requires operators to accomplish the interim inspection on a phase-in schedule ranging from 3150 to 4150 hours since the last inspection, with subsequent repetitive inspections at not more than 3150 hours.

Since a situation exists that requires immediate adoption of this regulation, it is found that notice and public

procedure are impracticable and contrary to the public interest, and good cause exists for making the AD effective immediately to all known operators of aircraft certified in all categories with AeroProducts Models A6441FN-606 and -606A propeller blades. This AD is hereby published in the Federal Register as an amendment to § 39.13 of Part 39 of the Federal Aviation Regulations to make it effective as to all persons.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) is amended by adding the following airworthiness directive:

**Detroit Diesel Allison.** Applies to AeroProducts Models A6441FN-606 and -606A propeller blades. Compliance is required as indicated.

To preclude propeller blade failure due to fatigue, complete an interim inspection of the blades in accordance with Detroit Diesel Allison Commercial Service Letter 501-D13/-606 CSL-240 dated March 1, 1976 thru Revision 3 dated July 26, 1977 as follows:

**Note.**—The fluorescent magnetic particle method must be used.

- If blades have more than 4000 hours since the last interim inspection or overhaul, complete an inspection within the next 150 hours time in service.
- If blades have 3150 to 4000 hours since the last interim inspection or overhaul, complete an inspection within the next 450 hours, or prior to exceeding 4150 hours, whichever occurs first.
- If blades have 2550 to 3149 hours since the last interim inspection or overhaul, complete an inspection within 600 hours, or prior to exceeding 3600 hours, whichever occurs first.
- If blades have less than 2550 hours since the last interim inspection or overhaul, complete an inspection prior to exceeding 3150 hours.
- If blade cracks are found during these inspections and/or if spalled areas are found exceeding limits as per CSL-240, entire propeller hub must also be inspected per CSL-240.
- Report the results of all inspections to Chief, Engineering and Manufacturing Branch, AGL-210, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018. (Reporting approved by Office of Management and Budget under OMB No. 04-RO-174.)
- All subsequent interim inspections shall be carried out at intervals not to exceed 3150 hours time in service.
- Alternate inspections or other actions which provide equivalent levels of safety may be used when approved by the Chief, Engineering and Manufacturing Branch, FAA, Great Lakes Region.

This amendment becomes effective December 5, 1979.

(Secs. 313(a), 601, and 603, Federal Aviation Act of 1958, as amended (49 U.S.C. 1354(a),

1421, and 1423); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); 14 CFR 11.89).

**Note.**—The Federal Aviation Administration has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A copy of the final evaluation prepared for this document is contained in the docket. A copy of it may be obtained by writing to Cornelius Biemond, Engineering and Manufacturing Branch, AGL-217, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

Issued in Des Plaines, Illinois on November 19, 1979.

Wayne J. Barlow,  
Director, Great Lakes Region.

[FR Doc. 79-36790 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 39

[Docket No. 79-GL-18-AD; Amdt. 39-3625]

**Detroit Diesel Allison; Models 501-D13, 501-D13A, 501-D13D, 501-D13E, and 501-D13H**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) which establishes cycle limits for certain second, third, and fourth stage turbine wheels. The wheels are subject to failure dependent upon cycles accumulated. Five wheel failures have resulted in loss of engine power.

**DATES:** Effective December 13, 1979. Compliance schedule—As prescribed in body of the AD.

**ADDRESSES:** The applicable engine service documents may be obtained from Detroit Diesel Allison, Division of General Motors Corporation, Indianapolis, Indiana 46206. Copies of the service information incorporated by reference in this AD are contained in the Rules Docket, Office of the Regional Counsel, 2300 East Devon Avenue, Des Plaines, Illinois 60018; and at FAA Headquarters, Room 916, 800 Independence Avenue, SW., Washington, D.C. 20591.

**FOR FURTHER INFORMATION CONTACT:** Cornelius Biemond, Engineering and Manufacturing Branch, AGL-217, Flight Standards Division, Federal Aviation Administration, 2300 East Devon Avenue, Des Plaines, Illinois 60018, telephone number (312) 694-4500, extension 359.

**SUPPLEMENTARY INFORMATION:** There have been five instances of turbine

wheel failure. These failures resulted in loss of engine power. Investigations revealed that the cause of these engine malfunctions was turbine wheel failure resulting from low cycle fatigue and is dependent upon carbide precipitation and cycles accumulated. Since this condition is likely to exist or develop in other engines of this type design with certain part number turbine wheels, an airworthiness directive is being issued to remove wheels from service based on cycles accumulated.

Since a situation exists that requires immediate adoption of this regulation, it is found that notice and public procedure are impracticable and contrary to the public interest and good cause exists for making the AD effective immediately to all known operators of Detroit Diesel Allison Model 501-D13, 501-D13A, 501-D13D, 501-D13E, and 501-D13H engines.

This AD is hereby published in the Federal Register as an amendment to § 39.13 of Part 39 of the Federal Aviation Regulations to make it effective as to all persons.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) is amended by adding the following airworthiness directive:

**Detroit Diesel Allison:** Applies to Model 501-D13, 501-D13A, 501-D13D, 501-D13E, and 501-D13H engines equipped with second, third, and fourth stage turbine wheels P/N's 6829072, 6847112, 6788833, 6842143, 6841223, 6846553, 6738424, and 6843014.

Compliance required as follows unless previously accomplished:

(a) For second stage turbine wheels, remove from service in accordance with FAA approved revision of 501-D13 CSL-235 dated December 13, 1979.

(b) For third and fourth stage turbine wheels, remove from service in accordance with FAA approved revision of 501-D13 CSL-253 dated December 13, 1979.

Detroit Diesel Allison Commercial Service Letters 501-D13 CSL-235, 501-D13 CSL-253, and Commercial Overhaul Information Letter 501-D13 COIL-349 revised as of December 13, 1979 are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). The incorporated service documents may be obtained from Detroit Diesel Allison, Division of General Motors Corporation, Indianapolis, Indiana 46206.

This amendment becomes effective on December 13, 1979.

(Secs. 313(a), 601, and 603, Federal Aviation Act of 1958, as amended, (49 U.S.C. 1354(a), 1421, and 1423); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.89).

**Note.**—The Federal Aviation Administration has determined that this

document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A copy of the final evaluation prepared for this document is contained in the docket. A copy of it may be obtained by writing to Cornelius Biemond, Engineering and Manufacturing Branch, AGL-217, FAA, 2300 East Devon Avenue, Des Plaines, Illinois 60018.

This supersedes Amendment 39-2391 Airworthiness Directive 75-22-05 and Amendment 39-3207 Airworthiness Directive 78-09-09.

Issued in Des Plaines, Illinois on November 19, 1979.

Wayne J. Barlow,  
Director, Great Lakes Region.

[FR Doc. 79-36791 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 39

[Docket No. 19788; Amdt. 39-3622]

**Airworthiness Directives; Messerschmitt-Bolkow-Blohm GmbH Model BO-105 Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) which requires modification of the balance provisions on certain tail rotor blades of Messerschmitt-Bolkow-Blohm (MBB) Model BO-105 helicopters. This AD is necessary to prevent in-flight loss of tail rotor balance trim weights, and consequent imbalance of the tail rotor, which could result in structural failure and loss of the helicopter. The AD is prompted by one BO-105 accident attributed to such cause.

**DATES:** Effective December 10, 1979.

Modification of the tail rotor balance provisions is required within 100 hours time in service after the effective date of this AD. Pending accomplishment of such modification, repetitive inspection of the tail rotor blades is required at 10-hour intervals.

**ADDRESSES:** The applicable service bulletin may be obtained from: Messerschmitt-Bolkow-Blohm GmbH, Unternehmensbereich Drehflügler, Postfach 801140, D-8000 Munchen 80, Federal Republic of Germany.

A copy of the service bulletin is contained in the Rules Docket, Room 916, 800 Independence Avenue, SW., Washington, D.C. 20591.

**FOR FURTHER INFORMATION CONTACT:** D. C. Jacobsen, Chief, Aircraft Certification Staff, AEU-100, Europe, Africa, and

Middle East Region, Federal Aviation Administration, c/o American Embassy, Brussels, Belgium, Telephone: 513.38.30, or C. Christie, Chief, Technical Analysis Branch, AWS-110, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591, Telephone: 202 426-8294.

**SUPPLEMENTARY INFORMATION:** One BO-105 accident has occurred in which the tail rotor and gearbox assembly, plus the upper portion of the vertical pylon, separated from the helicopter in flight. Subsequent examination of the separated components resulted in the conclusion that in-flight loss of balance trim weights from one tail rotor blade tip, and the consequent tail rotor imbalance, caused structural failures that resulted in loss of the tail rotor and substantial loss of control of the helicopter. Since this condition is likely to exist or develop in other helicopters of the same type design, this AD is being issued to require modification of tail rotor balance provisions on certain BO-105 tail rotor blades by moving the balance trim weights from the blade tip to the attach bolt at the blade shank where they will be both more secure and less subject to centrifugal force, and to require repetitive inspection of such tail rotor blades pending accomplishment of the modification.

Because a situation exists that requires the immediate adoption of this regulation, it is found that notice and public procedure hereon are impracticable and good cause exists for making this amendment effective in less than 30 days.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) is amended by adding the following new airworthiness directive:

#### Messerschmitt-Bolkow-Blohm GmbH.

Applies to all Model BO-105 helicopters, certificated in any category, incorporating tail rotor blades P/N 105-31742 or P/N 105-87161 that have not been modified in accordance with the Accomplishment Instructions, paragraph 2.B., of Messerschmitt-Bolkow-Blohm Alert Service Bulletin No. AB-16, Revision 1, dated December 22, 1978, hereinafter referred to as the Service Bulletin, or an FAA-approved equivalent.

Compliance required as indicated.

To prevent in-flight loss of tail rotor balance trim weights, and consequent imbalance of the tail rotor blades, accomplish the following:

(a) Within the next 10 hours time in service after the effective date of this AD, and thereafter following the last flight of each day upon which the accumulated time in service

since the preceding inspection reaches 10 hours, until the modifications required by paragraph (c) of this AD are accomplished, inspect the tail rotor blades for condition in accordance with paragraph 2.A. of the Accomplishment Instructions of the Service Bulletin, or an FAA-approved equivalent.

(b) If the inspection required by paragraph (a) of this AD reveals any cracks, or bonding separation that is unacceptable in accordance with the inspection criteria contained in paragraph 2.A. of the Service Bulletin, or an FAA-approved equivalent, before further flight, except that the helicopter may be flown in accordance with FAR 21.197 to a place where the required work can be performed—

(1) Replace the affected blade with a serviceable blade of the same part number and continue to comply with the repetitive inspection and modification requirements of paragraph (a) and (c) of this AD; or

(2) Replace both blades with blades of improved design, P/N 105-31743 or P/N 105-31744 after which paragraphs (a) and (c) of this AD do not apply. (See paragraph (d) of this AD.)

(c) Within the next 100 hours time in service after the effective date of this AD, inspect the tail rotor blades in accordance with paragraph 2.A. of the Service Bulletin or an FAA-approved equivalent and before further flight—

(1) If the inspection reveals any cracks, or bonding separation that is not acceptable in accordance with the inspection criteria contained in paragraph 2.A. of the Service Bulletin or an FAA-approved equivalent—

(i) Replace the affected blade with a serviceable blade of the same part number and modify the tail rotor blade balance provisions of both blades in accordance with paragraph 2.B. of Accomplishment Instructions of the Service Bulletin or an FAA-approved equivalent; or

(ii) Replace both blades with blades of improved design, P/N 105-31743 or P/N 105-31744. (See paragraph (d) of this AD.)

(2) If the inspection does not reveal any cracks or bonding separation that is not acceptable in accordance with the inspection criteria contained in paragraph 2.A. of the Service Bulletin or an FAA-approved equivalent, modify the tail rotor blade balance provisions of both blades in accordance with paragraph 2.B. of the Service Bulletin or an FAA-approved equivalent.

(d) If tail rotor blades are to be changed in compliance with this AD, both blades must be of the same part number.

(e) For the purpose of this AD, an FAA-approved equivalent must be approved by the Chief, Aircraft Certification Staff, AEU-100, FAA, Europe, Africa and Middle East Region, c/o American Embassy, Brussels, Belgium.

This amendment becomes effective December 10, 1979.

(Secs. 313(a), 601, and 603 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1354(a), 1421, and 1423); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); 14 CFR 11.89)

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as

implemented by Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979).

Issued in Washington, D.C., on November 19, 1979.

M. C. Beard,

Director of Airworthiness.

[FR Doc. 79-36418 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 39

[Docket No. 79-NE-10, Amdt. No. 39-3621]

#### Airworthiness Directives; Sikorsky S-76A Series Helicopters Certificated in All Categories

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment changes an existing Airworthiness Directive (AD), Docket No. 79-20-09, Amendment 39-3582, applicable to Sikorsky S-76A series helicopters certificated in all categories by requiring additional initial and repetitive bolt replacement intervals. The amendment is needed because the inspections and replacement time intervals specified in the existing AD for the horizontal stabilizer support fitting attachment bolts are inadequate.

**DATES:** Effective November 29, 1979. Compliance schedule—as prescribed in body of AD.

**ADDRESSES:** The applicable service bulletin may be obtained from Sikorsky Aircraft, Division of United Technologies Corporation, Stratford, Connecticut 06602. A copy of the service bulletin is contained in the Rules Docket, at the FAA New England Region Headquarters, Burlington, Massachusetts.

**FOR FURTHER INFORMATION CONTACT:** Stephen Soltis, Airframe Section, Engineering and Manufacturing Branch, Flight Standards Division, Federal Aviation Administration, New England Region, 12 New England Executive Park, Burlington, Massachusetts 01803; telephone: (617) 273-7336.

**SUPPLEMENTARY INFORMATION:** This notice amends Amendment 39-3582 (44 FR 57073), AD 79-20-09, which currently requires initial and repetitive inspection for cracks of the vertical stabilizer forward and aft spar assemblies, the stabilizer support fitting structure, and the aft tail cone structure; it also requires installation of a spar reinforcement modification kit. All components in which cracks are found must be replaced and/or repaired prior to further flight. After issuing

Amendment 39-3582, the FAA determined that additional initial and repetitive replacements of the horizontal stabilizer support fitting attachment bolts are required based on laboratory test results provided by Sikorsky and recent service experience. Therefore, the FAA is amending Amendment 39-3582 by requiring additional initial and repetitive bolt replacement intervals specified in the AD on Sikorsky model S-76A series helicopters certificated in all categories.

Since a situation exists that requires immediate adoption of this regulation, it is found that notice and public procedure hereon are impracticable, and good cause exists for making this amendment effective in less than 30 days.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 39.13 of Part 39 of the Federal Aviation Regulations (14 CFR 39.13) is amended by amending Amendment 39-3582 (44 FR 57073), AD 79-20-09, as follows:

(1) By the editorial change in item "4. Aft Tail Cone Structure," paragraph III as follows:

III. A. Effective for Serial Nos. \* \* \*  
[Was "III Effective for Serial Nos. \* \* \*"]

(2) By addition of subparagraph B in item "4. Aft Tail Cone Structure," paragraph III as follows:

B. Effective for rotorcraft with 200 hours or more time in service, compliance required within the next 15 hours time in service after the effective date, November 29, 1979, unless already accomplished within the last 100 hours time in service, and thereafter at intervals not to exceed 100 hours time in service from the last bolt replacement.

Replace the bolts, nuts, and washers which mate the 76209-04001-106 horizontal stabilizer support fitting and the aft tail cone structure, in accordance with Sikorsky Service Bulletins: 76-55-4, dated September 18, 1979, paragraphs 2A(6) through 2A(8), or 76-55-4A, dated October 19, 1979, paragraphs 2A(6) through 2A(8).

Note.—Remove bolts one at a time, if desired, as outlined in paragraph 2(B) of the above Service Bulletin 76-55-4A.

(3) Revise the Note listing Sikorsky references as follows:

Add: F. Service Bulletin No. 76-55-4A, dated October 19, 1979.

The manufacturer's specifications and procedures identified and described in this directive are incorporated herein and made a part hereof pursuant to 5 U.S.C. 552(a)(1). All persons affected by this directive, who have not already received these documents from the manufacturer, may obtain copies upon request to Sikorsky Aircraft, Division of United Technologies Corporation,

Stratford, Connecticut 06602. These documents may also be examined at the FAA, New England Region, 12 New England Executive Park, Burlington, Massachusetts, and at FAA Headquarters, 800 Independence Avenue, SW., Washington, D.C. A historical file on this AD, which includes the incorporated material in full, is maintained by the FAA at its Headquarters in Washington, D.C., and at FAA, New England Region Headquarters, Burlington, Massachusetts.

This amendment becomes effective upon publication in the **Federal Register**.

(Secs. 313(a), 601, and 603, Federal Aviation Act of 1958, as amended, (49 U.S.C. 1354(a), 1421, and 1423); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); 14 CFR 11.89.)

Note.—The FAA has determined that this document involves a regulation which is not considered to be significant under the provisions of Executive Order 12044, as implemented by Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 16, 1979). A final evaluation on this AD is contained in the docket.

Issued in Burlington, Mass., on November 14, 1979.

Robert E. Whittington,  
Director, New England Region.

(The incorporation by reference provisions of this document were approved by the Director of the Federal Register on June 19, 1967)

[FR Doc. 79-36419 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-WA-13]

#### Alteration of Additional Control Area

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment alters the "Control 1141" additional control area by changing the geographic coordinates of the Yarmouth, Nova Scotia, Canada, nondirectional radio beacon (NDB). The government of Canada is relocating the NDB to a position southwest of the Yarmouth Airport and the additional control areas predicated on it will automatically move to the new location.

**EFFECTIVE DATE:** November 29, 1979.

**FOR FURTHER INFORMATION CONTACT:** Mr. Everett L. McKisson, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone: (202) 426-3715.

**SUPPLEMENTARY INFORMATION:** The purpose of this amendment to Part 71 is to change the geographic position supplied in the definition of Control 1141 from (Lat. 43°54'40" N., Long. 66°06'12" W.) to (Lat. 43°47'36" N., Long. 66°07'36" W.). Because this action merely reflects the results of relocating an air navigation aid by the government of Canada a relatively short distance, it is a minor matter on which the public would have no particular desire to comment. Therefore, notice and public procedure thereon are unnecessary and good cause exists for making this amendment effective in less than 30 days after its publication by making it effective concurrent with the relocation of the NDB.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 71.163 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 347) is amended, effective 0901 G.m.t., November 29, 1979, as follows:

In Control 1141 "(Lat. 43°54'40" N., Long. 66°06'12" W.)" is deleted and "(Lat. 43°47'36" N., Long. 66°07'36" W.)" is substituted therefor.

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(a)); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69.)

Note.—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C., on November 19, 1979.

William E. Broadwater,  
Chief, Airspace and Air Traffic Rules Division.

[FR Doc. 79-36415 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-RM-24]

#### Alteration of Control Zone and Transition Areas

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment alters the 700' and 1,200' transition areas and

control zone at Colorado Springs, Colorado, to provide controlled airspace for aircraft executing the new instrument landing system (ILS) runway 17 standard instrument approach procedure to the Colorado Springs Municipal Airport, Colorado Springs, Colorado.

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** David M. Laschinger, Operations, Procedures and Airspace Branch, Air Traffic Division, ARM-500, Federal Aviation Administration, Rocky Mountain Region, 10455 East 25th Avenue, Aurora, Colorado 80010; telephone (303) 837-3937.

**SUPPLEMENTARY INFORMATION:**

**History**

On September 28, 1979, the FAA published for comment a Notice of Proposed Rulemaking (NPRM) to alter the 700' and 1,200' transition areas and control zone at Colorado Springs, Colorado (44 FR 57934). No objections were received in response to this notice.

**The Rule**

This amendment to Subparts F and G of Part 71 of the Federal Aviation Regulations amends the 700' and 1,200' transition areas and control zone at Colorado Springs, Colorado. This action is necessary to provide controlled airspace for aircraft executing the new instrument landing system (ILS) runway 17 standard instrument approach procedure to the Colorado Springs Municipal Airport, Colorado Springs, Colorado.

**Drafting Information**

The principal authors of this document are David M. Laschinger, Operations, Procedures and Airspace Branch, Air Traffic Division, and Daniel J. Peterson, office of Regional Counsel.

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is amended effective 0901 G.m.t., January 24, 1980, as follows:

By amending Subpart F, § 71.171 (44 FR 353) by altering the following control zone:

**Colorado Springs, Colo.**

Within a 6.5-mile radius of the City of Colorado Springs Municipal Airport (latitude 38°48'35" N., longitude 104°42'20" W.); within 2 miles each side of the Colorado Springs VORTAC 205° radial extending from the 6.5-mile radius to the VORTAC; within 1.5 miles each side of the Colorado Springs runway 17 ILS localizer course extending from the 6.5-mile radius to 9 miles north of the airport.

By amending Subpart G, § 71.181 (44 FR 442) by altering the following transition areas:

**Colorado Springs, Colo.**

That airspace extending upward from 700' above the surface within a 20-mile radius of the City of Colorado Springs Municipal Airport (latitude 38°48'35" N., longitude 104°42'20" W.); and within 5 miles west and 8 miles east of the Colorado Springs runway 17 ILS localizer course extending from the 20-mile radius area to 22.5 miles north of the airport, excluding that portion west of longitude 104°52'00" W.; and that airspace extending upward from 1,200' above the surface bounded on the north by latitude 39°00'00" N., on the east by V-169, on the south by latitude 38°30'00" N., and on the west by longitude 105°33'00" W.

(Sec. 307(a) Federal Aviation Act of 1958 as amended (49 U.S.C. 1348(a)); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c); and 14 CFR 11.69.)

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Aurora, Colo., on November 9, 1979.

M. M. Martin,

Director, Rocky Mountain Region.

[FR Doc. 79-36417 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

**14 CFR Part 71**

[Airspace Docket No. 79-SW-28]

**Designation of Alternate Airways**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment designates alternate airway V-13W between Palacios, Tex., and Humble, Tex., and alternate airway V-198S between Eagle Lake, Tex., and Sabine Pass, Tex. These new airways will improve air traffic flow by providing charted routes in areas where traffic is normally radar vectored.

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mr. Lewis W. Still, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone: (202) 426-8525.

**SUPPLEMENTARY INFORMATION:** On September 4, 1979, the FAA proposed to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to designate alternate airway V-13W from Palacios, Tex., to Humble, Tex., and alternate airway V-198S from Eagle Lake, Tex., to Sabine Pass, Tex. (44 FR 51610). Interested persons were invited to participate in the rulemaking proceeding by submitting comments on the proposal to the FAA. No comments objecting to the proposal were received. This amendment is the same as that proposed in the notice except for a slight correction to the radials under V-198S. Section 71.123 was republished in the Federal Register on January 2, 1979 (44 FR 307).

**The Rule**

This amendment to Part 71 of the Federal Aviation Regulations (14 CFR Part 71) designates alternate airway V-13W from Palacios, Tex., to Humble, Tex., and alternate airway V-198S from Eagle Lake, Tex., to Sabine Pass, Tex. This amendment will improve traffic flow, aid flight planning and reduce controllers workload.

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, § 71.123 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 307) is amended, effective 0901 G.m.t., January 24, 1980, as follows:

Under V-13 "Humble, Tex., Lufkin, Tex.," is deleted and "Humble, Tex., including a west alternate via INT Palacios 016° and Humble 243° Humble; Lufkin, Tex.," is substituted therefor.

Under V-198 "Sabine Pass; White Lake, La.," is deleted and "Sabine Pass including a south alternate from Eagle Lake via INT Eagle Lake 116° and Scholes 273°, Scholes; Sabine Pass; White Lake, La.," is substituted therefor.

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(a)); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69.)

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C., on November 19, 1979.

William E. Broadwater,  
Chief, Airspace and Air Traffic Rules  
Division.

[FR Doc. 79-36423 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-SW-29]

#### Designation of VOR Federal Airway

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment designates new VOR Federal Airway V-369 between Dallas-Fort Worth, Tex., and Navasota, Tex. This action reduces the mileage between Dallas and Navasota, aids flight planning and improves traffic flow in the area.

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mr. Lewis W. Still, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone: (202) 426-8525.

**SUPPLEMENTARY INFORMATION:** On October 4, 1979, the FAA proposed to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to designate Victor Airway V-369 between Dallas-Fort Worth, Tex., and Navasota, Tex., (44 FR 57106). At the present time aircraft fly VFR between Dallas and Navasota to avoid the longer route over current airways. This action reduces controller workload and aids flight planning. Interested persons were invited to participate in the rulemaking proceeding by submitting comments on the proposal to the FAA. No comments objecting to the proposal were received. This amendment is the same as that proposed in the notice. Section 71.123 was republished in the *Federal Register* on January 2, 1979, (44 FR 307).

#### The Rule

This amendment to Part 71 of the Federal Aviation Regulations (14 CFR Part 71) designates Victor Airway V-369 between Dallas-Fort Worth, Tex., and Navasota, Tex. The new airway will eliminate a dogleg route and provide a direct route thereby reducing mileage. Also, V-369 will improve traffic flow between Dallas-Fort Worth and Houston terminal areas.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 71.123 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 307) is amended, effective 0901 G.m.t., January 24, 1980, as follows:

Under § 71.123 "V-369 From Navasota, Tex., to Dallas-Fort Worth, Tex." is added.

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(a)); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69.)

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C., on November 19, 1979.

William E. Broadwater,  
Chief, Airspace and Air Traffic Rules  
Division.

[FR Doc. 79-36424 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-EA-20]

#### Designation of Transition Area, Orange, Va.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment designates an Orange, Va., Transition Area. A new VOR/DME instrument approach procedure has been proposed for Orange County Airport, Orange, Virginia, predicated on the Gordonsville VORTAC, Gordonsville, Virginia, and will require a designation of a 700-foot floor transition area to provide controlled airspace protection for aircraft executing the new proposed procedure.

**EFFECTIVE DATE:** 0901 GMT November 29, 1979.

**FOR FURTHER INFORMATION CONTACT:** Charles J. Bell, Airspace and Procedures Branch, AEA-530, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430, Telephone (212) 995-3391.

**SUPPLEMENTARY INFORMATION:** The purpose of this amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is to designate a new transition area. On page 36201 of the *Federal Register* for June 21, 1979, the FAA published a proposed amendment to designate the subject transition area. Interested parties were given time in which to submit comments. No objections were received.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is amended, effective 0901 GMT November 29, 1979, as published.

(Sections 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(c)); Sec. 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69)

Issued in Jamaica, New York on November 19, 1979.

Lonnie D. Parrish,

Acting Director, Eastern Region.

1. Amend Section 71.181 of Part 71 of the Federal Aviation Regulations by designating an Orange, Va., 700-foot floor transition area as follows:

#### Orange, Va.

That airspace extending upward from 700 feet above the surface within a 7-mile radius of the center, 38°14'44" N., 78°02'50" W., of the Orange County Airport, Orange, Va., and within 3.5 miles each side of the Gordonsville VORTAC, 020° radial, to 2 miles southwest of the radius circle excluding that area which lies within the Gordonsville, Va., transition area.

[FR Doc. 79-36771 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 78-EA-119]

#### Alteration of Transition Area, Newburgh, N.Y.

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment alters the Newburgh, N.Y., Transition Area. A new NDB RWY 3 instrument approach procedure has been developed for Orange County Airport, Montgomery, N.Y., and a new NDB RWY 26 approach for Randall Airport, Middletown, N.Y. This alteration will provide protection to aircraft executing the new and revised instrument approaches by increasing the controlled airspace. An instrument

approach procedure requires the designation of controlled airspace to protect instrument aircraft utilizing the instrument approach.

**EFFECTIVE DATE:** 0901 GMT November 29, 1979.

**FOR FURTHER INFORMATION CONTACT:** Charles J. Bell, Airspace and Procedures Branch, AEA-530, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430, Telephone (212) 995-3391.

**SUPPLEMENTARY INFORMATION:** The purpose of this amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is to alter the transition area. On page 9766 of the *Federal Register* for February 15, 1979, the FAA published a proposed amendment to alter the subject transition area. Interested parties were given time in which to submit comments. No objections were received.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is amended, effective 0901 GMT November 29, 1979, as published.

(Sections 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(c)); Sec. 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69)

Issued in Jamaica, New York on November 14, 1979.

Lonnie D. Parrish,  
Acting Director, Eastern Region.

1. Amend Section 71.181 of Part 71 of the Federal Aviation Regulations so as to amend the description of the Newburgh, N.Y. 700-foot floor transition area as follows:

a. Delete, "within 3.5 miles each side of the Orange County Airport ILS localizer south course, extending from the OM to a point 14 miles south of the OM" and insert the following in lieu thereof, "within 4.5 miles each side of the Orange County Airport ILS localizer south course extending from the OTIMS LOM (41°26'42"N., 74°17'33"W.) to 10.5 miles south of the LOM."

b. Following, "extending from the Huguenot VORTAC to 10 miles east of the Huguenot VORTAC", insert, "within 8 miles south and 3.5 miles north of a 081° bearing from the OTIMS LOM, extending from the LOM to 11.5 miles east of the LOM."

[FR Doc. 79-36772 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-CE-29]

#### Designation of Transition Area—Falls City, Nebraska

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The nature of this federal action is to designate a 700-foot transition area at Falls City, Nebraska, to provide controlled airspace for aircraft executing a new instrument approach procedure to Brenner Field Airport, Falls City, Nebraska based on the Non-Directional Radio Beacon (NDB), a navigational aid being installed on the airport. The intended effect of this action is to ensure segregation of aircraft using the new approach procedure under Instrument Flight Rules (IFR) and other aircraft operating under Visual Flight Rules (VFR).

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Benny J. Kirk, Airspace Specialist, Operations, Procedures and Airspace Branch, Air Traffic Division, ACE-538, FAA, Central Region, 601 East 12th Street, Kansas City, Missouri 64106, Telephone (816) 374-3408.

**SUPPLEMENTARY INFORMATION:** An instrument approach procedure to Brenner Field Airport, Falls City, Nebraska is being established based on a Non-Directional Radio Beacon (NDB), a navigational aid being installed on the airport by the State of Nebraska. This radio facility will provide new navigational guidance for aircraft utilizing the airport. The establishment of an instrument approach procedure based on this approach aid entails the designation of a transition area at Falls City, Nebraska at and above 700 feet above the ground (AGL) within which aircraft are provided air traffic control service. The intended effect of this action is to ensure segregation of aircraft using the new approach procedure under Instrument Flight Rules (IFR) and other aircraft operating under Visual Flight Rules (VFR).

#### Discussion of Comments

On pages 55017 and 55018 of the *Federal Register* dated September 24, 1979, the Federal Aviation Administration published a Notice of Proposed Rule Making which would amend Section 71.181 of Part 71 of the Federal Aviation Regulations so as to designate a transition area at Falls City, Nebraska. Interested persons were invited to participate in this rule making proceeding by submitting written

comments on the proposal to the FAA. No objections were received as a result of the Notice of Proposed Rule Making.

Accordingly, Subpart G, Section 71.181 of the Federal Aviation Regulations (14 CFR 71.181) as republished on January 2, 1979, (44 FR 442), is amended effective 0901 GMT January 24, 1980, by adding the following new transition area:

#### Falls City, Nebraska

That airspace extending upwards from 700 ft. above the surface within a 5-mi. radius of the Brenner Field Airport, Falls City, Nebraska (Lat. 40°04'39"N; Long. 95°35'27"W.), and within 3 mi. each side of the 142° bearing from the NDB facility (Lat. 40°04'35"N; Long. 95°35'12"W.), extending from the 5 mi. radius to 8 mi. SE of the NDB facility.

(Sec. 307(a), Federal Aviation Act of 1958 as amended (49 U.S.C. 1348); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); Sec. 11.69 of the Federal Aviation Regulations (14 CFR 11.69).)

**Note.**—The FAA has determined that this document involves a proposed regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Kansas City, Missouri, on November 20, 1979.

Paul J. Baker,  
Director, Central Region.

[FR Doc. 79-36773 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-CE-31]

#### Alteration of Transition Area—Crete, Nebraska

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The nature of this federal action is to alter the 700-foot transition area at Crete, Nebraska, to provide controlled airspace for aircraft executing a new instrument approach procedure to Runway 35 at the Crete, Nebraska Municipal Airport utilizing the Lincoln, Nebraska VHF Omni-directional Range as a navigational aid. The intended effect of this action is to ensure segregation of aircraft using the new approach procedure under Instrument Flight Rules (IFR) and other

aircraft operating under Visual Flight Rules (VFR).

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:**

Benny J. Kirk, Airspace Specialist, Operations, Procedures and Airspace Branch, Air Traffic Division, ACE-538, FAA, Central Region, 601 East 12th Street, Kansas City, Missouri 64106, Telephone (816) 374-3408.

**SUPPLEMENTARY INFORMATION:** A new instrument approach procedure to Runway 35 at the Crete Municipal Airport, Crete, Nebraska has been established utilizing the Lincoln, Nebraska VHF Omni-directional Range as a navigational aid. The establishment of a new instrument approach procedure based on this approach aid entails the alteration of the transition area at Crete, Nebraska at and above 700 feet above the ground (AGL) within which aircraft are provided air traffic control service. The intended effect of this action is to ensure segregation of aircraft using the new approach procedure under Instrument Flight Rules (IFR) and other aircraft operating under Visual Flight Rules (VFR).

**Discussion of Comments**

On page 57936 of the *Federal Register* dated October 9, 1979, the Federal Aviation Administration published a Notice of Proposed Rule Making which would amend § 71.181 of Part 71 of the Federal Aviation Regulations so as to alter the transition area at Crete, Nebraska. Interested persons were invited to participate in this rule making proceeding by submitting written comments on the proposal to the FAA. No comments were received as a result of the Notice of Proposed Rule Making.

Accordingly, Subpart G, Section 71.181 of the Federal Aviation Regulations (14 CFR 71.181) as republished on January 2, 1979 (44 FR 442), is amended effective 0901 GMT January 24, 1980, by altering the following transition area:

**Crete, Nebraska**

That airspace extending upward from 700 feet above the surface within a 6½ mile radius of the Crete Municipal Airport (latitude 40° 37' 30" N., longitude 96° 55' 45" W.) and within 3 miles either side of the 204° true radial of the Lincoln VORTAC (latitude 40° 55' 25.7" N., longitude 96° 44' 30.2" W.) extending from the 6½ mile radius area to 8½ miles southwest of the airport. (Sec. 307(a), Federal Aviation Act of 1958 as amended (49 U.S.C. 1348); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); Sec. 11.69 of the Federal Aviation Regulations (14 CFR 11.69))

**Note.**—The FAA has determined that this document involves a proposed regulation which is not significant under Executive

Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Kansas City, Missouri, on November 20, 1979.

Paul J. Baker,  
*Director, Central Region.*

[FR Doc 79-36774 Filed 11-28-79; 8:45 am]  
BILLING CODE 4910-13-M

**14 CFR Part 71**

[Airspace Docket No. 79-EA-35]

**Alteration of Transition Area; Binghamton, N.Y.**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment alters the Binghamton, N.Y., Transition Area over Broome County Airport, Binghamton, N.Y. This alteration will provide protection to aircraft executing the new VOR RWY 10 instrument approach which has been developed for the airport. An instrument approach procedure requires the alteration of controlled airspace to protect instrument aircraft utilizing the instrument approach.

**EFFECTIVE DATE:** 0901 GMT January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Charles J. Bell, Airspace and Procedures Branch, AEA-530, Air Traffic Division, Federal Aviation Administration, Federal Building, J.F.K. International Airport, Jamaica, New York 11430, Telephone (212) 995-3391.

**SUPPLEMENTARY INFORMATION:** The purpose of this amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is to alter a transition area. The rule resulted from the development of a new instrument approach for the airport. On page 50854 of the *Federal Register* for August 30, 1979, the FAA published a proposed amendment to alter the subject transition area. Interested parties were given time in which to submit comments. No objections were received.

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) is

amended, effective 0901 GMT January 24, 1980, as published.

(Section 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(c)); Sec. 6(c) of the Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69)

Issued in Jamaica, New York, on November 16, 1979.

Lonnie D. Parrish,  
*Acting Director, Eastern Region.*

**§ 71.181 [Amended]**

1. Amend § 71.181 of Part 71 of the Federal Aviation Regulations so as to amend the description of the Binghamton, N.Y., 700-foot floor transition area as follows:

In the text delete, "within 2 miles each side of the Binghamton VOR 066°-246° radial extending SW from the 7-mile radius area for 8 miles from the VOR"; and substitute therefor, "within 4 miles each side of the Binghamton VORTAC 066°-246° radial extending SW from the 7-mile radius area for 11 miles from the Binghamton VORTAC;"

[FR Doc. 79-36775 Filed 11-28-79; 8:45 am]  
BILLING CODE 4910-13-M

**14 CFR Part 71**

[Airspace Docket No. 79-ASW-33]

**Designation of Transition Area; Coleman, Tex.**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final Rule.

**SUMMARY:** The nature of the action being taken is to designate a transition area at Coleman, Tex. The intended effect of the action is to provide controlled airspace for aircraft executing a new instrument approach procedure to the Coleman Municipal Airport. The circumstance which created the need for the action is the establishment of a nondirectional radio beacon (NDB) located on the airport. Coincident with this action, the airport is changed from Visual Flight Rules (VFR) to Instrument Flight Rules (IFR).

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Manuel R. Hugonnet, Airspace and Procedures Branch (ASW-536), Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone 817-624-4911, extension 302.

**SUPPLEMENTARY INFORMATION:**

**History**

On September 24, 1979, a notice of proposed rule making was published in the *Federal Register* (44 FR 55017)

stating that the Federal Aviation Administration proposed to designate the Coleman, Tex., transition area. Interested persons were invited to participate in this rule making proceeding by submitting written comments on the proposal to the Federal Aviation Administration. Comments were received and one commentator objected to the proposal.

#### Discussion of Comments

The Department of the Air Force representative commented negatively to the proposed rule. The commentator objected because of the effect the proposal may have on the Military Training Route, IR153. The main concern is that the instrument approach procedure associated with the proposal could cause limitations or restrictions on use of the route. Instrument Flight Rules (IFR) traffic in controlled airspace will be separated by the appropriate air traffic control facility. Additionally, the missed approach procedure at Coleman Municipal Airport calls for the aircraft to climb to 4,000 feet mean sea level (MSL) before executing a left turn. The ceiling of IR153 in the vicinity of Coleman is 3,000 feet MSL. Further, the activity at Coleman Municipal Airport is very light and IR153 usage has been one sortie since August 1978, lessening any restrictions which may be imposed on either IFR approaches to Coleman Municipal Airport or to usage of IR153. Consequently, the Federal Aviation Administration has determined that any effect will be minimal. Except for editorial changes, this amendment is that proposed in the notice.

#### The Rule

This amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR 71) designates the Coleman, Tex., transition area. This action provides controlled airspace from 700 feet above the ground for the protection of aircraft executing instrument approach procedures to the Coleman Municipal Airport.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) is amended, effective 0901 GMT, January 24, 1980, as follows.

In Subpart G, 71.181 (44 FR 442), the following transition area is added:

Coleman, Tex.

That airspace extending upward from 700 feet above the surface within a 7-mile radius of the Coleman Municipal Airport (latitude 31°50'31"N., longitude 99°24'13"W.) and

within 3.5 miles each side of the 343° bearing from the NDB (latitude 31°50'28"N., longitude 99°24'21"W.) extending from the 7-mile radius area to 8.5 miles north of the NDB.

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a); and Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Fort Worth, Tex., on November 15, 1979.

C. R. Melugin, Jr.,

Director, Southwest Region.

[FR Doc. 79-36777 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-ASW-38]

#### Designation of Transition Area: Navasota, Texas

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final Rule.

**SUMMARY:** The nature of the action being taken is to designate a transition area at Navasota, Tex. The intended effect of the action is to provide controlled airspace for aircraft executing a new instrument approach procedure to the Navasota Municipal Airport. The circumstance which created the need for the action is the development of a standard instrument approach procedure to the Navasota Municipal Airport using the Navasota VORTAC. Coincident with this action, the airport is changed from Visual Flight Rules (VFR) to Instrument Flight Rules (IFR).

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Kenneth L. Stephenson, Airspace and Procedures Branch (ASW-535), Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone 817-624-4911, extension 302.

#### SUPPLEMENTARY INFORMATION:

##### History

On September 20, 1979, a notice of proposed rule making was published in the *Federal Register* (44 FR 54490) stating that the Federal Aviation Administration proposed to designate

the Navasota, Tex., transition area. Interested persons were invited to participate in this rule making proceeding by submitting written comments on the proposal to the Federal Aviation Administration. Comments were received without objections. Except for editorial changes this amendment is that proposed in the notice.

#### The Rule

This amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR 71) designates the Navasota, Tex., transition area. This action provides controlled airspace from 700 feet above the ground for the protection of aircraft executing instrument approach procedures to the Navasota Municipal Airport.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) is amended, effective 0901 GMT, January 24, 1980, as follows.

In Subpart G, 71.181 (44 FR 442), the following transition area is added:

Navasota, Tex.

That airspace extending upward from 700 feet above the surface within a 5-mile radius of the Navasota Municipal Airport, Navasota, Tex., (latitude 30°22'23"N., longitude 96°06'48"W.)

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a); and Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)))

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Fort Worth, Tex., on November 15, 1979.

C. R. Melugin, Jr.,

Director, Southwest Region.

[FR Doc. 79-36778 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-ASW-44]

#### Alteration of Transition Area: Dumas, Texas

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule

**SUMMARY:** The nature of the action being taken is to alter the transition area at Dumas, Tex. The intended effect of the action is to provide additional controlled airspace for aircraft executing a new instrument approach procedure to the Dumas Municipal Airport. The circumstance which created the need for the action is the establishment of a nondirectional radio beacon (NDB) located on the airport.

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Kenneth L. Stephenson, Airspace and Procedures Branch (ASW-535), Air Traffic Division, Southwest Region, Federal Aviation Administration, P.O. Box 1689, Fort Worth, Texas 76101; telephone 817-624-4911, extension 302.

**SUPPLEMENTARY INFORMATION:****History**

On October 9, 1979, a notice of proposed rule making was published in the *Federal Register* (44 FR 57938) stating that the Federal Aviation Administration proposed to alter the Dumas, Tex., transition area. Interested persons were invited to participate in this rule making proceeding by submitting written comments on the proposal to the Federal Aviation Administration. Comments were received without objections. Except for editorial changes this amendment is that proposed in the notice.

**The Rule**

This amendment to Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR 71) alters the Dumas, Tex., transition area. This action provides controlled airspace from 700 feet above the ground for the protection of aircraft executing established and proposed instrument approach procedures to the Dumas Municipal Airport.

**Adoption of the amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 442) is amended, effective 0901 GMT, January 24, 1980, as follows.

In Subpart G, 71.181 (44 FR 442), the following transition area is altered by adding the following:

**Dumas, Tex.**

\* \* \* and within 3 miles each side of the 197° bearing from the NDB (latitude 35°51'47"N., longitude 102°00'44"N.) extending from the 6-mile radius area to 8.5 miles south of the NDB.

(Sec. 307(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a)); and Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Fort Worth, Tex., on November 15, 1979.

**C. R. Melugin, Jr.,**

*Director, Southwest Region.*

[FR Doc. 79-36779 Filed 11-28-79; 8:45 am]

**BILLING CODE 4910-13-M**

**14 CFR Part 73**

[Airspace Docket No. 79-WA-12]

**Special Use Airspace; Alteration of Restricted Area**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment reduces the size of R-3602 Manhattan, Kans., Subarea B, restricted area by eliminating sufficient airspace in the southeast corner to permit a type of instrument approach that is proposed for Runway 03 at the Manhattan Municipal Airport. This action helps to expedite the traffic flow to the airport.

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mr. Everett L. McKisson, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone: (202) 426-3715.

**SUPPLEMENTARY INFORMATION:** The purpose of this amendment to Part 73 of the Federal Aviation Regulations (14 CFR Part 73) is to redefine the southeast boundary of R-3602, Subarea B, to eliminate from the restricted airspace an area that is required for the instrument landing system (ILS) approach to Runway 03 at the Manhattan Municipal Airport. Because this action relieves a burden on the public by returning airspace to public use, notice and public procedure thereon are unnecessary.

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator,

§ 73.36 of Part 73 of the Federal Aviation Regulations (14 CFR Part 73) as republished (44 FR 692) is amended, effective 0901 G.m.t., January 24, 1980, as follows:

In R-3602 Manhattan, Kans., Subarea B, under Boundaries, "to latitude 39°05'17" N., longitude 96°45'40" W.;" is deleted and "to latitude 39°05'25" N., longitude 96°46'17" W.; to latitude 39°06'25" N., longitude 96°44'40" W.;" is substituted therefor.

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(a)); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69.)

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C. on November 19, 1979.

**William E. Broadwater,**  
*Chief, Airspace and Air Traffic Rules Division.*

[FR Doc. 79-36420 Filed 11-28-79; 8:45 am]

**BILLING CODE 4910-13-M**

**14 CFR Part 73**

[Airspace Docket No. 78-SO-80]

**Special Use Airspace; Alteration of Restricted Area**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment extends Dare County, N.C., Restricted Areas R-5314G, R-5314H and R-5314J northward a distance of two miles or less to contain the turning radius and run in tracks of high-performance military aircraft using targets within the R-5314 subareas. This action provides for the safe and efficient use of the navigable airspace in this area.

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mr. Everett L. McKisson, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone (202) 426-3715.

**SUPPLEMENTARY INFORMATION:** On July 23, 1979, the FAA proposed to amend Part 73 of the Federal Aviation Regulations (14 CFR Part 73) to extend

three of the Dare County, N.C., Restricted Areas R-5314 slightly to the north to contain the turning radius and run in tracks of military aircraft using targets in the other areas of R-5314 (44 FR 43003, 45416, 47953). Interested persons were invited to participate in the rulemaking proceeding by submitting written comments on the proposal to the FAA. Three commenters withdrew objections after it was explained that the slight expansion is to the north and not to the south into a wildlife refuge. All other comments expressed no objection. Section 73.53 of Part 73 was republished in the *Federal Register* on January 2, 1979 (44 FR 705). This amendment is the same as proposed in the notice.

#### The Rule

This amendment to Part 73 of the Federal Aviation Regulations enlarges subareas G, H, and J of R-5314. The additional area is required to contain the turning and run in tracks of high-performance military aircraft operation at subsonic speeds in excess of 250 knots. The designated altitude, time of designation, controlling agency, and using agency remain unchanged for all of the Dare County, N.C., Restricted Areas. The U.S. Air Force has stated that the requirements of the National Environmental Policy Act have been met.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 73.53 of Part 73 of the Federal Aviation Regulations (14 CFR Part 73) as republished (44 FR 705) is amended, effective 0901 GMT, January 24, 1980, as follows:

Under R-5314, Subarea G, all before "Designated altitudes." is deleted and "Boundaries. Beginning at lat. 35°51'35" N., long. 75°57'55" W.; to lat. 35°38'55" N., long. 76°01'00" W.; to lat. 35°39'20" N., long. 76°05'00" W.; to lat. 35°51'59" N., long. 76°02'08" W.; to the point of beginning." is substituted therefor.

Under R-5314, Subarea H, all before "Designated altitudes." is deleted and "Boundaries. Beginning at lat. 35°51'59" N., long. 76°02'08" W.; to lat. 35°39'20" N., long. 76°05'00" W.; to lat. 35°40'25" N., long. 76°12'25" W.; to lat. 35°52'42" N., long. 76°09'49" W.; to the point of beginning." is substituted therefor.

Under R-5314, Subarea J, all before "Designated altitudes." is deleted and "Boundaries. Beginning at lat. 35°52'42" N., long. 76°09'49" W.; to lat. 35°40'25" N., long. 76°12'25" W.; to lat. 35°43'50" N., long. 76°35'30" W.; to lat. 35°53'50" N., long. 76°33'10" W.; to the point of beginning." is substituted therefor.

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a), and 1354(a)); sec.

6(c) Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69.)

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C., on November 19, 1979.

**William E. Broadwater,**  
Chief, Airspace and Air Traffic Rules  
Division.

[FR Doc. 79-36421 filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 75

[Airspace Docket No. 79-AL-17]

#### Establishment of Jet Routes and Area High Routes; Alteration of Waypoint

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment corrects the definition of the AMOTT waypoint southwest of Anchorage, Alaska, on area high routes J888R and J996R. A recomputation of the location of the intersection of these routes with jet route J-551 revealed the correct geographical position to be Lat. 60°54'04" N., Long. 151°21'11" W.

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mr. Everett L. McKisson, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone: (202) 426-3715.

**SUPPLEMENTARY INFORMATION:** The purpose of this amendment to Part 75 is to change the geographic position of the AMOTT waypoint in the description of J888R and J996R from Lat. 60°54'04" N., Long. 151°17'12" W. to Lat. 60°54'04" N., Long. 151°21'11" W. which is the correct location of the intersection of these routes with J-511 southwest of Anchorage. Aeronautical charts presently depict the waypoint symbol correctly at this intersection, however, the geographic coordinates are in error. Because this action merely corrects the definition of the present position of a waypoint and J888R and J996R, it is a minor matter on which the public would

have no particular desire to comment. Therefore, notice and public procedure thereon are unnecessary.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 75.400 of Part 75 of the Federal Aviation Regulations (14 CFR Part 75) as republished (44 FR 737) is amended, effective 0901 G.m.t., January 24, 1980, as follows:

Under J888R "AMOTT 60°54'04" N. 151°17'12" W." is deleted and "AMOTT 60°54'04" N. 151°21'11" W." is substituted therefor.

Under J996R "AMOTT 60°54'04" N. 151°17'12" W." is deleted and "AMOTT 60°54'04" N. 151°21'11" W." is substituted therefor.

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(a)); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69.)

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C., on November 19, 1979.

**William E. Broadwater,**  
Chief, Airspace and Air Traffic Rules  
Division.

[FR Doc. 79-36416 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 75

[Airspace Docket No. 79-WA-8]

#### Establishment of Jet Routes and Area High Routes; Alteration of Jet Route

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment alters Jet Route No. 524 by eliminating the segment more than 55 miles south of Montreal, Canada. This 48-mile segment south of the BUGSY intersection is not used and can no longer be justified as an assignment of airspace.

**EFFECTIVE DATE:** January 24, 1980.

**FOR FURTHER INFORMATION CONTACT:** Mr. Everett L. McKisson, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence

Avenue, SW., Washington, D.C. 20591; telephone: (202) 426-3715.

**SUPPLEMENTARY INFORMATION:** On September 4, 1979, the FAA proposed to amend Part 75 of the Federal Aviation Regulations (14 CFR Part 75) to rescind a segment of J-524 between the LEVIT and BUGSY intersections (44 FR 51611). This segment is more than 55 miles south of Montreal, Canada, and because it is not used it can no longer be retained as an assignment of airspace. Interested persons were invited to participate in the rulemaking proceeding by submitting written comments on the proposal to the FAA. The comments received expressed no objection. Section 75.100 of Part 75 was republished in the Federal Register on January 2, 1979 (44 FR 722). This amendment is the same as proposed in the notice.

#### The Rule

This amendment to Part 75 of the Federal Aviation Regulations (14 CFR Part 75) alters J-524 to extend from Montreal via the Montreal 188°T(203°M) radial to the intersection of the Albany, N.Y., 353°T(006°M) rather than to the Albany 343°T(356°M) radial. This action eliminates an unused segment of J-524 which can no longer be justified as an assignment of airspace. Chart clutter is hereby reduced in this area.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, § 75.100 of Part 75 of the Federal Aviation Regulations (14 CFR Part 75) as republished (44 FR 722) is amended, effective 0901 GMT, January 24, 1980, as follows:

Under Jet Route No. 524 "Albany, N. Y., 343°" is deleted and "Albany, N. Y., 353°" is substituted therefor.

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(a)); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.69).

**Note.**—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C., on November 19, 1979.

William E. Broadwater,  
Chief, Airspace and Air Traffic Rules  
Division.

[FR Doc. 79-38422 Filed 11-28-79; 8:45 am]  
BILLING CODE 4910-13-M

#### 14 CFR Part 97

[Docket No. 19789; Amdt. No. 1152]

#### Standard Instrument Approach Procedures; Miscellaneous Amendments

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final Rule.

**SUMMARY:** This amendment establishes, amends, suspends, or revokes Standard Instrument Approach Procedures (SIAPs) for operations at certain airports. These regulatory actions are needed because of the adoption of new or revised criteria, or because of changes occurring in the National Airspace System, such as the commissioning of new navigational facilities, addition of new obstacles, or changes in air traffic requirements. These changes are designed to provide safe and efficient use of the navigable airspace and to promote safe flight operations under instrument flight rules at the affected airports.

**DATES:** An effective date for each SIAP is specified in the amendatory provisions.

**ADDRESSES:** Availability of matters incorporated by reference in the amendment is as follows:

#### For Examination—

1. FAA Rules Docket, FAA Headquarters Building, 800 Independence Avenue, SW., Washington, D.C. 20591;
2. The FAA Regional Office of the region in which the affected airport is located; or
3. The Flight Inspection Field Office which originated the SIAP.

#### For Purchase—

- Individual SIAP copies may be obtained from:
1. FAA Public Information Center (APA-430), FAA Headquarters Building, 800 Independence Avenue, SW., Washington, D.C. 20591; or
  2. The FAA Regional Office of the region in which the affected airport is located.

#### By Subscription—

Copies of all SIAPs, mailed once every 2 weeks, may be ordered from

Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The annual subscription price is \$135.00.

#### FOR FURTHER INFORMATION CONTACT:

Gary W. Wirt, Flight Procedures and Airspace Branch (AFO-730), Aircraft Programs Division, Office of Flight Operations, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone (202) 426-8277.

**SUPPLEMENTARY INFORMATION:** This amendment to Part 97 of the Federal Aviation Regulations (14 CFR Part 97) prescribes new, amended, suspended, or revoked Standard Instrument Approach Procedures (SIAPs). The complete regulatory description of each SIAP is contained in official FAA form documents which are incorporated by reference in this amendment under 5 U.S.C. 552(a), 1 CFR Part 51, and § 97.20 of the Federal Aviation Regulations (FARs). The applicable FAA Forms are identified as FAA Forms 8260-3, 8260-4 and 8260-5. Materials incorporated by reference are available for examination or purchase as stated above.

The larger number of SIAPs, their complex nature, and the need for a special format make their verbatim publication in the Federal Register expensive and impractical. Further, airmen do not use the regulatory text of the SIAPs but refer to their graphic depiction on charts printed by publishers of aeronautical materials. Thus, the advantages of incorporation by reference are realized and publication of the complete description of each SIAP contained in FAA form document is unnecessary. The provisions of this amendment state the affected CFR (and FAR) sections, with the types and effective dates of the SIAPs. This amendment also identifies the airport, its location, the procedure identification and the amendment number.

This amendment to Part 97 is effective on the date of publication and contains separate SIAPs which have compliance dates stated as effective dates based on related changes in the National Airspace System or the application of new or revised criteria. Some SIAP amendments may have been previously issued by the FAA in a National Flight Data Center (FDC) Notice to Airmen (NOTAM) as an emergency action of immediate flight safety relating directly to published aeronautical charts. The circumstances which created the need for some SIAP amendments may require making them effective in less than 30 days. For the remaining SIAPs, an

effective date at least 30 days after publication is provided.

Further, the SIAPs contained in this amendment are based on the criteria contained in the U.S. Standard for Terminal Instrument Approach Procedures (TERPs). In developing these SIAPs, the TERPs criteria were applied to the conditions existing or anticipated at the affected airports. Because of the close and immediate relationship between these SIAPs and safety in air commerce, I find that notice and public procedure before adopting these SIAPs is unnecessary, impracticable, or contrary to the public interest and, where applicable, that good cause exists for making some SIAPs effective in less than 30 days.

#### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me, Part 97 of the Federal Aviation Regulations (14 CFR Part 97) is amended by establishing, amending, suspending, or revoking Standard Instrument Approach Procedures, effective at 0901 G.m.t. on the dates specified, as follows:

1. By amending § 97.23 VOR-VOR/DME SIAPs identified as follows:

*Effective January 24, 1980*

- Aurora, IL—Aurora Muni, VOR Rwy 36, Amdt. 3  
 Aurora, IL—Aurora Muni, VOR-A, Amdt. 7  
 Belvidere, IL—Belvidere LTD, VOR-A, Original  
 Belvidere, IL—Belvidere LTD, VOR-A, Amdt. 1, cancelled  
 Freeport, IL—The Albertus, VOR Rwy 24, Amdt. 3  
 Rochelle, IL—Rochelle Muni, VOR-A, Amdt. 5  
 Rockford, IL—Greater Rockford, VOR Rwy 12, Original  
 Rockford, IL—Greater Rockford, VOR Rwy 12, Amdt. 15, cancelled  
 New Iberia, LA—Acadiana Regional, VOR Rwy 16, Amdt. 7  
 New Iberia, LA—Acadiana Regional, VOR/DME Rwy 34, Amdt. 3  
 Rochester, MN—Rochester Muni, VOR Rwy 2, Amdt. 13  
 Rochester, MN—Rochester Muni, VOR/DME Rwy 20, Amdt. 11  
 Hobbs, NM—Lea County (Hobbs), VOR Rwy 3 (TAC), Amdt. 18  
 Hobbs, NM—Lea County (Hobbs), VOR/DME or TACAN Rwy 21, Amdt. 5

*Effective January 10, 1980*

- Bay Minette, AL—Bay Minette Muni, VOR Rwy 2, Amdt. 2  
 Cartersville, GA—Cartersville, VOR/DME-A, Amdt. 2  
 South Bend, IN—Michiana Regional, VOR Rwy 8, Amdt. 3  
 Westfield, MA—Barnes Muni, VOR Rwy 2, Original  
 Malden, MO—Malden Muni, VOR Rwy 31, Amdt. 6

- Johnstown, PA—Johnstown-Cambria County, VOR Rwy 5, Amdt. 4  
 Johnstown, PA—Johnstown-Cambria County, VOR/DME Rwy 15, Amdt. 2  
 Johnstown, PA—Johnstown-Cambria County, VOR Rwy 15, Amdt. 6  
 Johnstown, PA—Johnstown-Cambria County, VOR Rwy 23, Amdt. 4

*Effective December 27, 1979*

- Bemidji, MN—Bemidji Muni, VOR Rwy 13, Amdt. 12  
 Bemidji, MN—Bemidji Muni, VOR/DME or TACAN Rwy 31, Amdt. 8

2. By amending § 97.25 SDF-LOC-LDA SIAPs identified as follows:

*Effective January 24, 1980*

- Rockford, IL—Greater Rockford, LOC BC Rwy 18, Amdt. 11  
 Baton Rouge, LA—Ryan, LOC BC Rwy 31, Amdt. 13  
 New Iberia, LA—Acadiana Regional, LOC Rwy 34, Amdt. 4  
 Hobbs, NM—Lea County (Hobbs), LOC/DME BC Rwy 21, Amdt. 3

*Effective January 10, 1980*

- South Bend, IN—Michiana Regional, LOC (BC) Rwy 9, Amdt. 10  
 Tullahoma, TN—Tullahoma Muni/Soesbe-Martin Fld, SDF Rwy 18, Original

*Effective December 27, 1979*

- Cedar Rapids, IA—Cedar Rapids Muni, LOC BC Rwy 27, Amdt. 4, cancelled  
 Wildwood, NJ—Cape May County, LOC Rwy 19, Original

3. By amending § 97.27 NDB/ADF SIAPs identified as follows:

*Effective January 24, 1980*

- DeKalb, IL—DeKalb Muni, NDB Rwy 27, Amdt. 4  
 Freeport, IL—The Albertus, NDB Rwy 24, Amdt. 8  
 Rockford, IL—Greater Rockford, NDB Rwy 36, Amdt. 20  
 Baton Rouge, LA—Ryan, NDB Rwy 13, Amdt. 20  
 New Iberia, LA—Acadiana Regional, NDB Rwy 34, Amdt. 4  
 Rochester, MN—Rochester Muni, NDB Rwy 31, Amdt. 16

*Effective January 10, 1980*

- South Bend, IN—Michiana Regional, NDB Rwy 27, Amdt. 22  
 Jackson, MS—Allen C. Thompson, NDB Rwy 15L, Amdt. 1

*Effective December 27, 1979*

- Liberal, KS—Liberal Muni, NDB Rwy 35, Original  
 Portland, ME—Portland International Jetport, NDB Rwy 11, Amdt. 13  
 Bemidji, MN—Bemidji Muni, NDB Rwy 31, Amdt. 1

4. By amending § 97.29 ILS-MLS SIAPs identified as follows:

*Effective January 24, 1980*

- Rockford, IL—Greater Rockford, ILS Rwy 36, Amdt. 23  
 Baton Rouge, LA—Ryan, ILS Rwy 13, Amdt. 2

- Baton Rouge, LA—Ryan, ILS Rwy 22, Amdt. 21  
 Rochester, MN—Rochester Muni, ILS Rwy 13, Amdt. 1  
 Rochester, MN—Rochester Muni, ILS Rwy 31, Amdt. 14  
 Hobbs, NM—Lea County (Hobbs), ILS Rwy 3, Amdt. 3  
 Janesville, WI—Rock County, ILS Rwy 4, Amdt. 6

*Effective January 10, 1980*

- South Bend, IN—Michiana Regional, ILS Rwy 27, Amdt. 28  
 Baltimore, MD—Baltimore-Washington Intl, ILS Rwy 15R, Amdt. 9  
 Johnstown, PA—Johnstown-Cambria County, ILS Rwy 33, Amdt. 1

*Effective December 27, 1979*

- Colorado Springs, CO—City of Colorado Springs Muni, ILS Rwy 17, Amdt. 1  
 Denver, CO—Stapleton Intl, ILS/DME Rwy 17L, Amdt. 1  
 Liberal, KS—Liberal Muni, ILS Rwy 35, Original  
 Portland, ME—Portland International Jetport, ILS Rwy 11, Amdt. 16  
 Bemidji, MN—Bemidji Muni, MLS Rwy 31 (Interim), Amdt. 1

5. By amending § 97.31 RADAR SIAPs identified as follows:

*Effective January 24, 1980*

- Rockford, IL—Greater Rockford, RADAR-1, Amdt. 2  
 Baton Rouge, LA—Ryan, RADAR-1, Amdt. 5  
 Rochester, MN—Rochester Muni, RADAR-1, Amdt. 5

*Effective January 10, 1980*

- South Bend, IN—Michiana Regional, RADAR-1, Amdt. 3

6. By amending § 97.33 RNAV SIAPs identified as follows:

*Effective January 24, 1980*

- Hobbs, NM—Lea County (Hobbs), RNAV Rwy 12, Amdt. 2, cancelled

*Effective January 10, 1980*

- Malden, MO—Malden Muni, RNAV Rwy 13, Original

(Secs. 307, 313(a), 601, and 1110, Federal Aviation Act of 1958 (49 U.S.C. §§ 1348, 1354(a), 1421, and 1510); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.49(b)(3))

Note.—The FAA has determined that this document involves a regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation.

Issued in Washington, D.C. on November 23, 1979.

James M. Vines,  
Chief, Aircraft Programs Division.

Note.—The incorporation by reference in the preceding document was approved by the Director of the Federal Register on May 12, 1969.

[FR Doc. 79-36780 Filed 11-28-79; 8:45 am]  
BILLING CODE 4910-13-M

## SECURITIES AND EXCHANGE COMMISSION

### 17 CFR Part 240

[Release No. 34-16357]

### Technical Amendments to Proxy Rules

AGENCY: Securities and Exchange Commission.

ACTION: Final rules.

**SUMMARY:** This release amends the proxy regulations, Regulation 14A and 14C and Schedules 14A and 14C, by substituting the word "issuer" for the word "management" to acknowledge the fact that it is the board of directors, and not management, which solicits proxies.

**EFFECTIVE DATE:** December 31, 1979.

**FOR FURTHER INFORMATION CONTACT:**

Amy L. Goodman (202) 272-2597,  
G. Michael Stakias (202) 272-2589, or  
Gregory H. Mathews (202) 272-2644,  
Division of Corporation Finance,  
Securities and Exchange Commission,  
Washington, D.C. 20549.

**SUPPLEMENTARY INFORMATION:** Since these amendments are editorial in nature and do not make any changes in the regulations and schedules that have not been previously announced in Securities Exchange Act Release No. 16104 (August 13, 1979), 44 FR 48938, notice of proposed rulemaking is unnecessary under the Administrative Procedure Act [5 U.S.C. 552]. Accordingly, Part 240 of Chapter II of Title 17 of the Code of Federal Regulations is amended as follows:

**§ 240.14a-3 [Amended]**

(1) Section 240.14a-3 is amended by deleting "of the management" in paragraph (b).

(2) In § 240.14a-3 paragraphs (b) (1) and (2) are amended by deleting the word "management" wherever it appears and inserting the word "issuer" in its place.

(3) In § 240.14a-3 paragraph (b)(4) Note 2, paragraph (5), and the Note of paragraph (6) are amended by deleting the word "management" wherever it appears and inserting the words "the issuer" in its place.

(4) In § 240.14a-3 paragraph (b)(9) is amended by deleting the word "management's" and inserting the words "the issuer's" in its place, and is further amended by deleting the word "management" and inserting the words "the issuer" in its place.

(5) In § 240.14a-3 paragraphs (b) (10) and (11) are amended by deleting the word "management" wherever it appears and inserting the words "the issuer" in its place.

(6) In § 240.14a-3 paragraph (b)(12) is amended by deleting the word "management" and inserting "issuer" in its place, and is further amended by deleting the word "management's" and inserting the word "issuer's" in its place.

(7) Section 240.14a-3 is amended by deleting the words "managements of" in the Note to paragraph (c).

**§ 240.14a-4 [Amended]**

(8) In § 240.14a-4 paragraph (a) is amended by deleting the word "management" wherever it appears and inserting the word "issuer" in its place.

(9) Section 240.14a-7 is amended by deleting the words "management of the" in the first paragraph.

(10) Section 240.14a-7 is amended by deleting the word "management" in paragraph (a)(1) and inserting the word "issuer" in its place.

(11) Section 240.14a-7 is amended by deleting the words "management of the" in paragraph (a)(2).

(12) In § 240.14a-7 paragraph (b)(2) is amended by deleting the word "management" wherever it appears and inserting the words "the issuer" in its place.

(13) In § 240.14a-7 paragraph (b)(3) is amended by deleting the words "Neither the management nor the issuer shall be" and inserting the words "The issuer shall not be" in their place.

(14) Section 240.14a-7 is amended by deleting the words "management of the" in paragraph (c) wherever it appears.

**§ 240.14a-8 [Amended]**

(15) In § 240.14a-8 paragraph (a) is amended by deleting the words "the management of the issuer", and is further amended in paragraph (a) and paragraphs a (1), (2) and (3) by deleting the word "management" where it still appears and inserting the word "issuer" in its place.

(16) In § 240.14a-8 paragraph (a)(3)(i) is amended by deleting the words "management at the issuer's" and inserting the words "issuer at its" in their place.

(17) In § 240.14a-8 paragraph (a)(4) is amended by deleting the words "management's" and inserting the word "issuer's" in its place, and is further

amended by deleting the word "management" and inserting the word "issuer" in its place.

(18) In § 240.14a-8 paragraph (b) is amended by deleting the word "management" and inserting the word "issuer" in its place, and is further amended by deleting the phrase "neither the management nor" and inserting the word "not" following the words "the issuer shall".

(19) In § 240.14a-8 paragraph (c) is amended by deleting the word "management" and inserting the word "issuer" in its place.

(20) In § 240.14a-8 paragraph (c)(4) is amended by deleting the words "its management".

(21) In § 240.14a-8 paragraphs (c)(9), 11 and 12 are amended by deleting the word "management" and inserting the word "issuer" wherever it appears.

(22) In § 240.14a-8 paragraph (d) is amended by deleting the word "management" and inserting the word "issuer" in its place.

(23) In § 240.14a-8 paragraph (e) is amended by deleting the word "management" and inserting the word "issuer" in its place, and is further amended by deleting "management" and inserting the words "the issuer" in its place.

**§ 240.14a-9 [Amended]**

(24) In § 240.14a-9 paragraph (c) is amended by deleting the word "management" and inserting the word "issuer" in its place, and is further amended by deleting the word "management" and inserting the words "the issuer" in its place.

**§ 240.14a-11 [Amended]**

(25) Section 240.14a-11 is amended by deleting the word "management of an" in paragraphs (c)(1) and (2).

(26) In § 240.14a-11 paragraph (c)(3) is amended by deleting the word "management" and inserting the words "the issuer" in its place.

(27) In § 240.14a-11 paragraph (f) is amended by deleting the word "management" and inserting the word "issuer" in its place.

**§ 240.14a-101 [Amended]**

(28) In § 240.14a-101 Note B is amended by deleting the word "management's" and inserting the word "issuer's" in its place and is further amended by deleting the words "management of the".

(29) In § 240.14a-101 Item 3 paragraph (a) is amended by deleting the words "management of an" wherever they appear and is further amended by deleting the word "management"

wherever it appears and inserting the word "issuer".

(30) In § 240.14a-101 Items 4 and 6 are amended by deleting the word "management" wherever it appears and inserting the words "the issuer" in its place.

(31) In § 240.14a-101 Items 7 and 19 are amended by deleting the word "management" and inserting the word "issuer" in its place.

(32) In § 240.14a-101 Item 8 is amended by deleting the words "management of".

(33) Section 240.14c-101 is amended by deleting the words "management of the" in the Note.

(34) Section 240.14c-101 is amended by deleting the words "management" wherever it appears and inserting the word "issuer" in its place.

By the Commission.

George Fitzsimmons,  
Secretary.

November 21, 1979.

[FR Doc. 79-36666 Filed 11-28-79; 8:45 am]

BILLING CODE 8010-01-M

## JOINT BOARD FOR THE ENROLLMENT OF ACTUARIES

### 20 CFR Part 901

#### User Fee for Examinations Given by the Joint Board for the Enrollment of Actuaries

**AGENCY:** Joint Board for the Enrollment  
of Actuaries.

**ACTION:** Final rule.

**SUMMARY:** The rule amends the regulations governing eligibility for enrollment to perform actuarial services under the Employee Retirement Income Security Act of 1974 (ERISA). It establishes by regulation authority for the Joint Board for the Enrollment of Actuaries (Joint Board) to charge an applicant a fee to participate in examinations administered under its regulations. The fee charged would be for the purpose of meeting the costs of administering the examinations.

**EFFECTIVE DATE:** November 13, 1979.

**FOR FURTHER INFORMATION CONTACT:**  
Mr. Leslie S. Shapiro, Executive  
Director, Joint Board for the Enrollment  
of Actuaries, c/o Department of the  
Treasury, Washington, D.C. 20220,  
telephone (202) 376-0767.

#### SUPPLEMENTARY INFORMATION:

##### Background

An enrolled actuary, as defined in the Employee Retirement Income Security Act of 1974 (ERISA), 29 U.S.C. 1000 et seq., is an individual who is enrolled to

perform actuarial services under the Act. Those individuals are enrolled by the Joint Board established under Section 3041 of ERISA. The regulations in 20 CFR Part 901 govern the enrollment of actuaries and the performance of actuarial services under ERISA. 20 CFR 901.13 provides, as an element of eligibility for enrollment, for the demonstration of at least a minimum level of knowledge in actuarial matters. Successful completion of examinations in actuarial mathematics and methodology offered by the Joint Board is a means by which an applicant may meet the knowledge requirement. In accordance with this requirement, the Joint Board administers an examination in basic actuarial mathematics and methodology and a separate examination in actuarial mathematics and methodology relating to pension plans.

On August 9, 1979, the Joint Board published proposed amendments to the regulations in 20 CFR Part 901, providing authority by regulation for the Joint Board to charge a fee for an individual to participate in its examinations. The amendment would reflect a new procedure whereby functions related to the examinations will be provided jointly by the Joint Board and organizations not part of the Joint Board. In the past, the costs of the examinations have been borne entirely by the Departments of the Treasury and Labor. The Joint Board believes that the jointly-administered examinations will provide more efficient service to applicants and reduce the costs to the Government.

This regulation is intended to implement all examinations offered under the joint administration concept. The first examinations thereunder will be held on November 14 and 15, 1979. Consequently, November 13, 1979, has been established as the effective date.

Written comments on the proposal were invited. Two were received. After consideration of the comments received, the amendment to the regulations is adopted as proposed.

#### Discussion of Comments

The first commenter made only one suggestion—that the Joint Board carefully consider whether the direct and indirect expenses to the Government in collecting and accounting for the fees would exceed the amount of the fees collected. The comment was neither for or against the imposition of fees, but rather raised the practical consideration indicated.

The expenses incurred in collecting and accounting for the fees will not be substantial. The joint examination

program for which the fee is required should result in a reduction of total administrative expenses through more efficient procedures. In any event, the regulation is flexible so that the fee structure could be revised to take into account increased administrative expenses. However, the Joint Board does not foresee increases in such expenses at this time.

The second commenter raised several separate issues concerning the proposed regulation.

The first issue raised was whether comments would, in fact, be considered by the Joint Board before adopting the final rule, considering the close proximity of the September 10, 1979 closing date for comments on the proposed user fee regulation to the September 25, 1979 deadline for applying for the 1979 examinations. The commenter suggested postponing implementation of the regulation until 1980 to allow time to fully consider all comments on the proposed regulation.

The Joint Board received responses from only two commenters on the proposed rule and has fully considered all the issues raised in these responses that are pertinent to the proposed regulations. Thus, there is no need to delay the effective date of the regulations until 1980 to afford time for further consideration.

The second issue raised concerned several general financial considerations regarding the proposed rule. These were that imposing a fee for the Joint Board examinations is contrary to the Federal voluntary anti-inflation wage and price guidelines, and that since enrollment of an actuary provides a special benefit rather than taking the examination, it would be more appropriate to charge a fee for enrollment than for the examinations.

The Joint Board is of the view that the primary economic effect of the regulation is to shift the cost burden from appropriations for the Departments of the Treasury and Labor to the individuals taking the examinations and does not believe it has an inflationary impact.

A fee is being imposed for examinations rather than enrollment because the intent is to recoup the costs of administering examinations, not the cost of enrolling those individuals who pass the examinations. The "user fee" statute (Act of August 31, 1951, ch. 376, Title V, Section 501, 65 Stat. 290, 31 U.S.C. 483a) authorizes a Federal agency to charge a fee for a service provided by that agency, taking into consideration, among other things, the cost to the Government and value to the recipient. OMB Circular No. A-25, which

implements the statute, states that where a service provides special benefits to an identifiable recipient above and beyond those which accrue to the public at large, a charge should be imposed to recover the full cost to the Federal Government in rendering that service. It would be inappropriate under the statute to charge an applicant for enrollment for costs incurred in administering the examination. It is the Joint Board's belief that since demonstration of actuarial knowledge is a requirement for enrollment, participation in the examination is an element in attaining enrollment status. Hence, the examination does provide special benefits to an examinee above and beyond those which accrue to the public at large and the fee is in accord with the precepts of OMB Circular No. A-25. The Joint Board believes that it is more fair to allocate examination costs among all individuals who take the examinations, rather than just among those who pass them. In addition, efficiency of the jointly-administered examination program requires that all entities administering the examination charge a fee for it. Substituting a fee for enrollment for the fee for the examination would not suffice. In view of the above, the Joint Board believes that a fee for the examinations is appropriate.

The third issue raised was that the proposed regulation did not contain detailed information on how the 1979 fee of \$30 per examination was calculated, nor how the fee is to be determined for future examinations.

The preamble to the proposed rule states that the expenses which the fee is intended to cover are the costs of printing the examination and answer sheets, computer costs for grading the examinations, postage, salaries of personnel responsible for developing, administering, and grading the examinations, and rental expenses for examination centers. The fee of \$30 was agreed to be the best estimate possible by the Joint Board and the actuarial organizations participating in the joint examination, all of whom have had extensive experience in administering actuarial examinations. Past experience in administering such examinations has demonstrated that the exact amount of personnel costs, a major expense in administering examinations, cannot be determined. Hence, an exact apportionment of costs per examination is not possible and no detailed information can be provided. The user fee statute requires that the fee be fair and equitable taking into consideration direct and indirect costs to the

Government. The fee for the 1979 examinations is based on the requirements of the statute as will the fees for future examinations.

#### Comments Beyond Scope

One of the two commenters recommended several changes in examination procedures. These recommendations are beyond the scope of the notice of proposed rule-making.

#### Drafting Information

The principal author of this amendment is Mr. Leslie S. Shapiro, Executive Director, Joint Board for the Enrollment of Actuaries and members of his staff.

#### § 901.13 [Amended]

Accordingly, 20 CFR 901.13 is amended as follows:

- (a) by redesignating present paragraph (e) as paragraph (f); and
- (b) by adding a new paragraph (e), as follows:

(e) *Form; fee.* An applicant who wishes to take an examination administered by the Joint Board under paragraphs (c)(1) or (d)(1) of this section shall file an application on a form prescribed by the Joint Board. Such application shall be accompanied by a check or money order in the amount set forth on the application form, payable to the Treasury of the United States. The amount represents a fee charged to each applicant for examination and is designed to cover the costs assessed the Joint Board for the administration of the examination. The fee shall be retained by the United States whether or not the applicant successfully completes the examination or is enrolled.

(Sec. 3042, Subtitle C, Title 3, Employee Retirement Income Security Act of 1974 (88 Stat. 1002, 29 U.S.C. 1241, 1242), and the Act of August 31, 1951, ch. 376, Title V, Section 501, 65 Stat. 290, 31 U.S.C. 483a.)

Dated: November 21, 1979.

Rowland E. Cross,  
*Chairman, Joint Board for the Enrollment of Actuaries.*

Ray Marshall,  
*Secretary of Labor.*

G. William Miller,  
*Secretary of the Treasury.*

[FR Doc. 79-30796 Filed 11-28-79; 8:45 am]

BILLING CODE 4810-25-M

## DEPARTMENT OF TRANSPORTATION

### Federal Highway Administration

#### 23 CFR Part 770

[FHWA Docket No. 79-25]

#### Air Quality Guidelines for Use in Federal-Aid Highway Programs; Interim Conformity Procedures

##### Corrections

In FR Doc. 79-35519 appearing on page 66193 in the issue of Monday, November 19, 1979, under **DATES**, the effective date should read "November 8, 1979" and the Comments date should read "January 18, 1980".

BILLING CODE 1505-01-M

## DEPARTMENT OF THE TREASURY

### Internal Revenue Service

#### 26 CFR Part 1

[T.D. 7655]

#### Income Tax; Taxable Years Beginning After December 31, 1953; Collapsible Corporations

**AGENCY:** Internal Revenue Service, Treasury.

**ACTION:** Final regulations.

**SUMMARY:** This document provides final regulations relating to "collapsible corporations". Changes to the applicable tax law were made by the Act of August 22, 1964. These regulations provide necessary guidance to taxpayers for compliance with the Act and effect certain collapsible corporations and their shareholders.

**DATE:** In general, the regulations are effective for transactions occurring after August 22, 1964.

**FOR FURTHER INFORMATION CONTACT:** Lawrence M. Axelrod of the Legislation and Regulations Division, Office of the Chief Counsel, Internal Revenue Service, 1111 Constitution Avenue, N.W., Washington, D.C. 20224, Attention: CC:LR:T, (202-566-3458, not a toll-free call).

#### SUPPLEMENTARY INFORMATION:

##### Background

On July 6, 1977, the Federal Register published proposed amendments to the Income Tax Regulations (26 CFR Part 1) under section 341(f) of the Internal Revenue Code of 1954 (42 FR 34523). The amendments were proposed to conform the regulations to section 1(a) and 2 of the Act of August 22, 1964 (Pub. L. 88-484, 78 Stat. 596). No public hearing was requested and none was held. After

consideration of all comments regarding the proposed amendments, those amendments are adopted as revised by this Treasury decision.

Generally, section 341(f) provides that section 341(a) shall not apply to a sale of stock of a corporation if such corporation consents to recognize gain on any future disposition by it of its "subsection (f) assets" (defined, generally, as assets of the corporation other than certain capital assets, owned or held under option on the date the stock of the corporation is sold) and if the sale of stock is made within the 6-month period after the consent is filed.

This provision is intended to provide relief to shareholders who desire to sell stock of a corporation that is rapidly growing and expects to continue in business but which holds constructed or produced properties which are worth substantially more than their cost and upon which there has not been substantial realization of the profits to be derived from the properties. The shareholders, through a sale of stock, would like to capitalize on the future prospects of this growing company. However, on such a stock sale, the corporation might be regarded as falling within the definition of a collapsible corporation (under section 341(b)) if the shareholders realize gain upon the sale of stock of the corporation prior to the realization by the corporation of a substantial part of the income to be derived from the constructed or produced properties.

Section 341(f) provides that the collapsible provisions will not apply to the sale of stock in a corporation which consents to recognize gain upon later disposition of, generally, its assets other than certain capital assets. The treatment provided has the effect of assuring that ultimately there will be the same tax consequences as if the assets had been sold before the stock.

#### Summary of Changes

The Treasury decision is identical to the notice of proposed rulemaking of July 6, 1977, with the exception of the changes noted below.

Section 1.341-1 and Example (1) of § 1.341-7(e)(4) are modified to use the term "ordinary income" to conform to a change introduced by the so called "Deadwood Bill" (Title XIX of the Tax Reform Act of 1976).

In response to taxpayer comments, section 1.341-7 has been modified to make it inapplicable to shareholders who never owned (either actually or constructively) more than 5 percent in value of the outstanding stock of a corporation. Accordingly, a sale of stock of a consenting corporation, for

purposes of section 341(f)(1), does not include a disposition of stock by a shareholder to which section 341(d)(1) applies. As a result, a shareholder who never owned more than a 5 percent interest in a consenting corporation and who sells stock of the corporation need not comply with the notification requirements of section 1.341-7(d). Also, the disposition of stock by such a shareholder within the 6-month period after a consent is filed will not taint the corporation's assets as "subsection (f)" assets.

In addition, a 5 percent-or-less shareholder of a consenting corporation who sold any stock in that corporation during the previous 5 years will not be barred by section 341(f)(5) from availing itself of the relief provided under section 341(f) for another consenting corporation.

The term "taxpayer account number" which appeared in § 1.341-7(b)(2) and (f)(3) of the proposed regulations has been deleted and the term "employer identification number" has been substituted in its place.

Also, a new § 1.341-7(j)(5) is added dealing with a corporation that is a member of an affiliated group filing a consolidated return. The corporation is considered to have filed a consent if one is filed on its behalf by the group's common parent.

In addition, this Treasury decision corrects § 1.1502-32(d)(6) which was revised by T.D. 7637, appearing at 44 FR 46838, on August 9, 1979. The amendment set forth in paragraph 4 of this document deletes "August 6, 1979," and inserts in its place "August 9, 1979,".

#### Drafting Information

The principal author of this regulation is Lawrence M. Axelrod of the Legislation and Regulations Division of the Office of Chief Counsel, Internal Revenue Service. However, personnel from other offices of the Internal Revenue Service and Treasury Department participated in developing the regulations, both on matters of substance and style.

#### Adoption of Amendments to the Regulations

Accordingly, the amendments published with notice of proposed rulemaking in the *Federal Register* for July 6, 1977 (42 FR 34523) are adopted as proposed subject to the changes set forth in paragraphs 1, 2, and 3 of this document.

Paragraph 1. Paragraph 1 of the proposed amendments is revised to read as follows:

Section 1.341 is deleted.

Par. 2. Section 1.341-1 as set forth in paragraph 2 of the proposed amendments is amended by deleting from the end of the section the words "gain from the sale or exchange of property which is not a capital asset" and inserting in place thereof the words "ordinary income".

Par. 3. Section 1.341-7, as set forth in paragraph 3 of the proposed amendments, is amended as follows:

1. Paragraph (a)(2) is revised.

2. Paragraphs (b)(2) and (f)(3) are each amended by deleting the words "taxpayer account number" wherever it appears and inserting in its place the words "employer identification number".

3. Paragraph (e)(2) is amended by deleting "332", and inserting in its place "332 (c)".

4. Example (1) of paragraph (e)(4) is amended by deleting the words "gain from the sale or exchange of property which is neither a capital asset nor property described in section 1231", and inserting in its place the words "ordinary income".

5. Paragraph (h) is revised.

6. A new paragraph (j)(5) is added. The new and revised provisions read as follows:

#### § 1.341-7 Certain sales of stock of consenting corporations.

(a) In general. \* \* \*

(2) For purposes of section 341(f) (1) and (5)—

(i) The term "sale" means a sale or exchange of stock at a gain, but only if such gain would be recognized as long-term capital gain were section 341 not a part of the Code. Thus, a sale or exchange of stock is not a "sale" within the meaning of section 341 (f) (1) and (5) if there is no gain on the transaction, or if the sale or exchange gives rise to ordinary income under a provision of the Code other than section 341, or if gain on the transaction is not recognized under any provision of subtitle A of the Code.

(ii) A sale of stock in a corporation does not include any disposition of such stock by a shareholder if, by reason of section 341 (d)(1), section 341(a) could not have applied to that disposition. (Under section 341(d)(1), section 341(a) does not apply except to more-than-5-percent shareholders.) Except as otherwise provided in paragraph (a)(2)(i) of this section, the term "sale" includes a disposition of stock in a corporation by a more-than-5-percent shareholder described in section 341(d)(1), even though section 341(a) did not apply to the disposition because the corporation was not collapsible or by reason of the application of section 341 (d) (2), (3), or (e).

(h) Five-year limitation as to shareholder. Under section 341 (f)(5), section 341(f)(1) does not apply to the sale of stock of a consenting corporation if, during the 5-year period ending on the date of such sale, such

shareholder (or any person related to such shareholder within the meaning of section 341(e)(8)(A)) made a sale (as defined in paragraph (a)(2) of this section) of any stock of another consenting corporation within any 6-month period beginning on a date on which a consent was filed under section 341(f)(1) by such other corporation. Section 341(f)(5) does not prevent a shareholder of a consenting corporation from receiving the benefit of section 341(f)(1) on the sale of additional shares of the stock of the same consenting corporation.

*(j) Special rule for stock ownership in other corporations.*

(5) If a corporation is a member of an affiliated group (as defined in section 1504 (a)) that files a consolidated return, a corporation will be considered to have filed a consent if a consent is filed on its behalf by the common parent under § 1.1502-77(a).

Par. 4. Section 1.1502-32(d)(6) is amended by deleting "August 6, 1979," and inserting in its place "August 9, 1979."

This Treasury decision is issued under the authority contained in sections 341 (f), 1502, and 7805 of the Internal Revenue Code of 1954 (78 Stat. 596, 68A Stat. 637, 68A Stat. 917; 26 U.S.C. 341(f), 1502, 7805).

Jerome Kurtz

Commissioner of Internal Revenue.

Approved: November 20, 1979.

Donald C. Lubick,

Assistant Secretary of the Treasury.

Par. 1 Section 1.341-1 is amended to read as follows:

**§ 1.341-1 Collapsible corporations; in general.**

Subject to the limitations contained in § 1.341-4 and the exceptions contained in § 1.341-6 and § 1.341-7 (a), the entire gain from (a) the actual sale or exchange of stock of a collapsible corporation, (b) amounts distributed in complete or partial liquidation of a collapsible corporation which are treated, under section 331, as payment in exchange for stock, and (c) a distribution made by a collapsible corporation which, under section 301 (c)(3), is treated, to the extent it exceeds the basis of the stock, in the same manner as a gain from the sale or exchange of property, shall be considered as ordinary income.

Par. 2 There is inserted immediately after § 1.341-6 the following new section:

**§ 1.341-7 Certain sales of stock of consenting corporations.**

(a) *In general.*—(1) Under section 341(f)(1), if a corporation consents (in the manner provided in paragraph (b) of this section) to the application of section 341(f)(2) with respect to dispositions by it of its subsection (f) assets (as defined

in paragraph (g) of this section), then section 341(a)(1) does not apply to any sales of stock of such consenting corporation (other than a sale to such corporation) made by any of its shareholders within the 6-month period beginning on the date on which such consent is filed.

(2) For purposes of section 341 (f) (1) and (5)—(i) The term "sale" means a sale or exchange of stock at a gain, but only if such gain would be recognized as long-term capital gain were section 341 not a part of the Code. Thus, a sale or exchange of stock is not a "sale" within the meaning of section 341 (f) (1) and (5) if there is no gain on the transaction, or if the sale or exchange gives rise to ordinary income under a provision of the Code other than section 341, or if gain on the transaction is not recognized under any provision of subtitle A of the Code.

(ii) A sale of stock in a corporation does not include any disposition of such stock by a shareholder if, by reason of section 341(d)(1), section 341(a) could not have applied to that disposition. (Under section 341(d)(1), section 341(a) does not apply except to more-than-5-percent shareholders.) Except as otherwise provided in paragraph (a)(2)(i) of this section, the term "sale" includes a disposition of stock in a corporation by a more-than-5-percent shareholder described in section 341(d)(1), even though section 341(a) did not apply to the disposition because the corporation was not collapsible or by reason of the application of section 341(d) (2), (3), or (e).

(3) A corporation which consents to the application of section 341(f)(2) does not thereby become noncollapsible, and the fact that a corporation consents to the application of section 341(f)(2) does not affect the determination as to whether it is a collapsible corporation.

(4) For limitation on the application of section 341(f)(1) see section 341 (f) (5) and (6) and paragraphs (h) and (j) of this section.

(b) *Statement of consent.*—(1) The consent of a corporation referred to in paragraph (a)(1) or (j)(1) of this section shall be given by means of a statement, signed by any officer who is duly authorized to act on behalf of the consenting corporation stating that the corporation consents to have the provisions of section 341(f)(2) apply to any dispositions by it of its subsection (f) assets. The statement shall be filed with the district director having jurisdiction over the income tax return of the consenting corporation for the taxable year during which the statement is filed.

(2)(i) The statement shall contain the name, address, and employer identification number of any corporation 5 percent or more in value of the outstanding stock of which is owned directly by the consenting corporation, and of any other corporation connected to the consenting corporation through a chain of stock ownership described in paragraph (j)(4) of this section. The statement shall also indicate whether such 5-percent-or-more corporation (or such "connected" corporation) has consented, within the 6-month period ending on the date on which the statement filed to the application of section 341(f)(2) with respect to any dispositions of its subsection (f) assets (see paragraph (j) of this section), and, if so, the district director with whom such consent was filed and the date on which such consent was filed.

(ii) If, during the 6-month period beginning on the date on which the statement is filed, the consenting corporation becomes the owner of 5 percent or more in value of the outstanding stock of another corporation or becomes connected to another corporation through a chain of stock ownership described in paragraph (j)(4) of this section, then the consenting corporation shall, within 5 days after such occurrence, notify the district director with whom it filed the statement of the name, address and employer identification number of such corporation.

(3) A consent under section 341(f)(1) may be filed at any time and there is no limit as to the number of such consents that may be filed. If a consent is filed by a corporation under section 341(f)(1) and if a shareholder sells stock (i) in such corporation, or (ii) in another corporation a sale of whose stock is treated under section 341(f)(6) as a sale of stock in such corporation, at any time during the applicable 6-month period, then the consent cannot thereafter be revoked or withdrawn by the corporation. However, a consent may be revoked or withdrawn at any time prior to a sale during the applicable 6-month period. If no sale is made during such period, the consent will have no effect on the corporation. See paragraph (g) of this section.

(2) The nonrecognition provisions of subtitle A of the Code which section 341(f)(2) overrides include, but are not limited to, sections 311(a), 332(c), 336, 337, 351, 361, 371(a), 374(a), 721, 1031, 1033, 1071, and 1081.

(3) In the case of a foreign corporation which files a statement of consent pursuant to paragraph (b) of this section, such statement, in addition to the information required in paragraph (b) of

this section, shall also contain a declaration that the corporation consents that any gain upon the disposition of a subsection (f) asset which would otherwise be recognized under section 341(f)(2) will, for purposes of section 882(a)(2), be considered as gross income which is effectively connected with the conduct of a trade or business which is conducted through a permanent establishment within the United States.

(4) The provisions of subparagraphs (1) and (2) of this paragraph may be illustrated by the following examples:

*Example (1).* Corporation X, a consenting corporation, distributes a subsection (f) asset to its shareholders in complete or partial liquidation of the corporation. The asset, at the time of the distribution, is held by the corporation primarily for sale to customers in the ordinary course of business and has an adjusted basis of \$1,000 and a fair market value of \$2,000. Under section 341(f)(2), the excess of the fair market value of the asset over its adjusted basis, or \$1,000 is treated as ordinary income. Assuming the gain is not recognized by corporation X under another provision of the Code, corporation X recognizes the \$1,000 gain as ordinary income under section 341(f)(2) even though, in the absence of section 341(f)(2), section 336 would preclude the recognition of such gain.

*Example (2).* Corporation Y, a consenting corporation, distributes a subsection (f) asset to its shareholders as a dividend. The asset at the time of the distribution is property described in section 1231 and has an adjusted basis of \$6,000 and a fair market value of \$8,000. Assuming that no other section of the Code would require recognition of gain, under section 341(f)(2) the excess of the fair market value of the asset over its adjusted basis, or \$2,000, is recognized by corporation Y as gain from the sale or exchange of property described in section 1231 even though, in the absence of section 341(f)(2), section 311(a) would preclude the recognition of such gain.

*Example (3).* Assume the same facts as in example (2) except that the subsection (f) asset is section 1245 property having a "recomputed basis" (as defined in section 1245 (a)(2)) of \$7,200. Since the recomputed basis of the asset is lower than its fair market value, the excess of the recomputed basis over the adjusted basis, or \$1,200, is recognized as ordinary income under section 1245(a)(1). The remaining amount, or \$800, is recognized under section 341(f)(2) as gain from the sale or exchange of property described in section 1231.

(5) The provisions of section 341(f)(2) apply whether or not (i) on the date on which a consent is filed or at any time thereafter, the consenting corporation was in fact a collapsible corporation within the meaning of section 341(b), or (ii) on the date of any sale of stock of the consenting corporation, the purchaser of such stock was aware that a consent had been filed under section 341(f)(1) within the 6-month period ending on the date of such sale.

(6) Section 341(f)(2) does not apply to losses. Thus, section 341(f)(2) does not apply if a loss is realized upon a sale, exchange or involuntary conversion of a subsection (f) asset nor does the section apply to a disposition other than by way of sale, exchange, or involuntary conversion if at the time of the disposition the fair market value of such property is not greater than its adjusted basis.

(7) For purposes of this paragraph, the term "disposition" includes an abandonment or retirement, a gift, a sale in a sale-and-leaseback transaction, and a transfer upon the foreclosure of a security interest. Such term, however, does not include a mere transfer of title to a creditor upon creation of a security interest or to a debtor upon termination of a security interest. Thus, for example, a disposition occurs upon a sale of property pursuant to a conditional sales contract even though the seller retains legal title to the property for purposes of security, but a disposition does not occur when the seller ultimately gives up his security interest following payment by the purchaser.

(8) The amount of gain required to be recognized by section 341(f)(2) shall be determined separately for each subsection (f) asset disposed of by the corporation. For purposes of applying section 341(f)(2), the facts and circumstances of each disposition shall be considered in determining whether the transaction involves more than one subsection (f) asset or involves both subsection (f) and nonsubsection (f) assets. In appropriate cases, several subsection (f) assets may be treated as a single asset as long as it is reasonably clear, from the best estimates obtainable on the basis of all the facts and circumstances, that the amount of gain required to be recognized by section 341(f)(2) is not less than the total gain under section 341(f)(2) which would be computed separately for each subsection (f) asset.

(9) In the case of a sale, exchange, or involuntary conversion of a subsection (f) asset and a nonsubsection (f) asset in one transaction, the total amount realized upon the disposition shall be allocated between the subsection (f) asset and the nonsubsection (f) asset in proportion to their respective fair market values. In general, if a buyer and seller have adverse interests as to the allocation of the amount realized between the subsection (f) asset and the nonsubsection (f) asset, any arm's-length agreement between the buyer and the seller will establish the allocation. In the absence of such an agreement, the allocation shall be made by taking into

account the appropriate facts and circumstances. Some of the facts and circumstances which shall be taken into account to the extent appropriate include, but are not limited to, a comparison between the subsection (f) asset and all the property disposed of in such transaction of (i) the original cost and reproduction cost of construction, erection, or production, (ii) the remaining economic useful life, (iii) state of obsolescence, and (iv) anticipated expenditures to maintain, renovate, or modernize.

(10) See paragraph (c)(1) of § 1.1502-14 for the deferral of gain recognized upon a distribution other than in complete liquidation made by one member of a group which files a consolidated return to another such member.

(f) *Exception for certain tax-free transactions.*—(1) Under section 341(f)(3), no gain is taken into account under section 341(f)(2) by a transferor corporation on the transfer of a subsection (f) asset to another corporation (other than a corporation exempt from tax imposed by chapter 1 of the Code) if—

(i) The basis of such asset in the hands of the transferee corporation is determined by reference to its basis in the hands of the transferor by reason of the application of section 332 (relating to distributions in liquidation of an 80-percent-or-more controlled subsidiary corporation), section 351 (relating to transfers to a corporation controlled by the transferor), section 361 (relating to exchanges pursuant to certain reorganizations), section 371 (a) (relating to exchanges pursuant to certain receivership and bankruptcy proceedings), or section 374 (a) (relating to exchanges pursuant to certain railroad reorganizations), and

(ii) The transferee corporation agrees (as provided in subparagraph (3) of this paragraph) to have the provisions of section 341 (f)(2) apply to any disposition by it of such asset.

(2) The provisions of subparagraph (1) of this paragraph may be illustrated by the following examples:

*Example (1).* Corporation M, in exchange for its voting stock worth \$20,000 and \$1,000 in cash, acquires the entire property of corporation N (an unencumbered apartment building) in a transaction which is described in section 368 (a) (2) (B) and which, therefore, qualifies as a reorganization under section 368 (a) (1) (C). The apartment building, which in the hands of corporation N, a consenting corporation, is a subsection (f) asset, has an adjusted basis of \$15,000 and a fair market value of \$21,000. The basis of the apartment house in the hands of corporation M is determined by reference to its basis in the hands of corporation N by reason of the

application of section 361. Thus, under section 341 (f) (3), if corporation M agrees to have the provisions of section 341 (f) (2) apply to any disposition by it of the apartment house, then corporation N will recognize no gain under section 341 (f) (2) but will recognize \$1,000 gain under section 361 (b) (assuming the cash it receives is not distributed in pursuance of the plan of reorganization). However, if corporation M does not so agree, the gain recognized by corporation N will be \$6,000, that is, the gain of \$1,000 recognized under section 361 (b) plus \$5,000 gain recognized under section 341 (f) (2). In either case, if section 1245, 1250, or 1251 applies, some or all of the gain may be recognized under sections in lieu of sections 341 (f) (2) and 361 (b).

*Example (2).* Corporation Y, a consenting corporation, is a wholly owned subsidiary of corporation X. In the complete liquidation of Y it distributes to X a subsection (f) asset which is section 1245 property. The asset at the time of the distribution has an adjusted basis of \$10,000, a recomputed basis of \$14,000, and a fair market value of \$16,000. The basis of the asset in the hands of X is determined by reference to its basis in the hands of corporation Y by reason of the application of section 332. Thus, under section 341 (f) (3), if corporation X agrees to have the provisions of section 341 (f) (2) apply to any disposition by it of the subsection (f) asset, then Y will recognize no gain under section 341 (f) (2) and will recognize no gain under section 1245 (a) (1) by reason of the application of section 1245 (b) (3). Under section 334 (b) (1), the basis of the subsection (f) asset to corporation X will be the same as it would be in the hands of Y, or \$10,000. However, if corporation X does not so agree, then under section 341 (f) (2) \$6,000 (the excess of the fair market value of the asset over its adjusted basis) will be treated as gain from the sale or exchange of the asset. Moreover, under section 1245 (a) (1) \$4,000 (the excess of the recomputed basis over the adjusted basis) of the \$6,000 will be recognized as ordinary income. The basis of the asset to corporation X is \$16,000, *i.e.*, the same as it would be in the hands of Y (\$10,000) increased in the amount of gain recognized by Y on the distribution (\$6,000).

(3) The agreement of a transferee corporation referred to in subparagraph (1) of this paragraph shall be filed, on or before the date on which the subsection (f) assets are transferred, with the district director having jurisdiction over its income tax return for the taxable year during which the transfer is to be made. The agreement shall be signed by any officer who is duly authorized to act on behalf of the transferee corporation (if the transaction is one to which section 371(a) or 374(a) applies, the fiduciary for the transferee corporation, in appropriate cases, may sign the agreement) and shall apply to all the subsection (f) assets to be transferred pursuant to the applicable transaction described in section 341(f)(3). The agreement shall identify the transaction by which the subsection (f) assets will

be acquired, including the names, addresses, and employer identification numbers of the transferor and transferee corporations, and shall contain a schedule of the subsection (f) assets to be acquired. The agreement shall also state that the transferee corporation (i) agrees to have the provisions of section 341(f)(2) apply to any disposition by it of the subsection (f) assets acquired, and (ii) agrees to maintain records adequate to permit identification of such subsection (f) assets.

(4) The transferor corporation shall attach a copy of the agreement to its income tax return for the taxable year in which the subsection (f) assets are transferred.

(g) *Subsection (f) asset defined.*—(1) Under section 341(f)(4), a subsection (f) asset is any property which, as of the date of any sale of stock to which paragraph (a) or (j)(3) of this section applies, is not a capital asset and is property owned by, or subject to a binding contract or an option to acquire held by, the consenting corporation. Land or any interest in real property (other than a security interest) is treated as property which is not a capital asset. Also, unrealized receivables or fees (as defined in section 341(b)(4)) are treated as property which are not capital assets.

(2) If, with respect to any property described in subparagraph (1) of this paragraph, manufacture, construction, or production has been commenced by either the consenting corporation or another person before any date of sale of stock described in subparagraph (1) of this paragraph, a consenting corporation's subsection (f) assets include any property resulting from such manufacture, construction, or production. Thus, for example, if, on the date of any sale of stock within the 6-month period, manufacture, construction, or production has been commenced on a tract of land to be used for residential housing or on a television series, the term "subsection (f) asset" includes the residential homes or the television tapes resulting from such manufacture, construction, or production by the consenting corporation (or by a transferee corporation which has agreed to the application of section 341(f)(2)). If land or any interest in real property (other than a security interest) is owned or held under an option by the consenting corporation on the date of any sale of stock described in subparagraph (1) of this paragraph, the term "subsection (f) asset" includes any improvements resulting from construction with respect to such property (by the consenting corporation or by a transferee corporation which has

agreed to the application of section 341(f)(2)) if such construction is commenced within 2 years after the date of any such sale. The property or improvements resulting from any manufacture, construction, or production is a question to be determined on the basis of the particular facts and circumstances of each individual case. Thus, for example, a building which is a part of an integrated project is a subsection (f) asset if construction of the project commenced before the date of sale or within 2 years thereafter even if construction of the building commenced more than 2 years thereafter. Similarly a television tape which is part of a series is a subsection (f) asset if production of the series was commenced on the date of sale even if production of the tape commenced after the sale.

(3) The provisions of subparagraphs (1) and (2) of this paragraph may be illustrated by the following examples:

*Example (1).* Corporation X files a consent to the application of section 341 (f) (2) on January 1, 1965. Shareholder A owns 100 percent of the outstanding stock of the consenting corporation on January 1, 1965, and sells 5 percent of the stock on January 2, 1965, 10 percent on February 10, 1965, and 1 percent on May 1, 1965. No other sales of X stock were made during the 6-month period beginning on January 1, 1965. On such date X owns an apartment building and on March 1 X purchases an office building. X's subsection (f) assets include the apartment building owned on January 1 and the office building purchased on March 1.

*Example (2).* Assume the same facts as in example (1) except that on January 1, 1965, X also owns a tract of raw land. On April 1, 1965, construction of a residential housing project is commenced on the tract of land. Corporation X's subsection (f) assets will include the tract of land plus the resulting improvements to the land. This result would not be changed if construction of the residential housing project were not commenced until July 1, 1966, since the construction would have been commenced within 2 years after May 1, 1965.

*Example (3).* Corporation Y files a consent to the application of section 341 (f) (2) on January 1, 1965. Shareholder B owns 100 percent of the outstanding stock of the consenting corporation on January 1, 1965, and sells 10 percent of the stock on June 1, 1965. On April 1, 1965, Y acquires an option to purchase a motion picture when completed. On May 1, 1965, production is started on the motion picture. On February 1, 1967, production is completed, and Y exercises its option. Y holds the option and the motion picture for use in its trade or business. Y's subsection (f) assets initially include the option and ultimately include the motion picture. However the exercise of the option is not a disposition of the option within the meaning of section 341(f)(2).

(h) *Five-year limitation as to shareholder.* Under section 341(f)(5),

section 341(f)(1) does not apply to the sale of stock of a consenting corporation if, during the 5-year period ending on the date of such sale, such shareholder (or any person related to such shareholder within the meaning of section 341(e)(8)(A)) made a sale (as defined in paragraph (a)(2) of this section) of any stock of another consenting corporation within any 6-month period beginning on a date on which a consent was filed under section 341(f)(1) by such other corporation. Section 341(f)(5) does not prevent a shareholder of a consenting corporation from receiving the benefit of section 341(f)(1) on the sale of additional shares of the stock of the same consenting corporation.

(i) [Reserved]

(j) *Special rule for stock ownership in other corporations.*—(1) Section 341(f)(6) provides a special rule applicable to a consenting corporation which owns 5 percent or more in value of the outstanding stock of another corporation. In such a case, a consent filed by the consenting corporation shall not be valid with respect to a sale of its stock during the applicable 6-month period unless each corporation, 5 percent or more in value of the outstanding stock of which is owned by the consenting corporation on the date of such sale, files (within the 6-month period ending on the date of such sale) a valid consent under section 341(f)(1) with respect to sales of its own stock.

(2) The provisions of subparagraph (1) of this paragraph may be illustrated by the following example:

*Example* Corporation X files a consent under section 341(f)(1) on November 1, 1965. On January 1, 1966, the date on which a shareholder of corporation X sells stock of X. X owns 80 percent in value of the outstanding stock of corporation Y. In order for the consent filed by corporation X to be valid with respect to the sale of its stock on January 1, 1966, corporation Y must have filed, during the 6-month period ending on January 1, 1966, a valid consent under section 341(f)(1) with respect to sales of its stock.

(3) For purposes of applying section 341(f)(4) (relating to the definition of a subsection (f) asset) to a corporation 5 percent or more in value of the outstanding stock of which is owned by the consenting corporation, a sale of stock of the consenting corporation to which section 341(f)(1) applies shall be treated as a sale of stock of such other corporation. Thus, in the example in subparagraph (2) of this paragraph, the subsection (f) assets of corporation Y would include property described in section 341(f)(4) owned by or held under an option by corporation Y on January 1, 1966.

(4) In the case of a chain of corporations connected by the 5-percent ownership requirement described in subparagraph (1) of this paragraph, rules similar to the rules described in subparagraphs (1) and (3) of this paragraph shall apply. Thus, in the example in subparagraph (2) of this paragraph, if corporation Y owned 5 percent or more of the stock of corporation Z on January 1, 1966, then Z must have filed a valid consent during the 6-month period ending January 1, 1966, in order for the consent filed by X to be valid with respect to the sale of its stock on January 1, 1966. In such case any sale of stock of either X or Y is treated as a sale of stock of Z for purposes of applying section 341(f)(4) to Z.

(5) If a corporation is a member of an affiliated group (as defined in section 1504(a)) that files a consolidated return, a corporation will be considered to have filed a consent if a consent is filed on its behalf by the common parent under § 1.1502-77(a).

(k) *Effective date.* Paragraphs (b), (c), (e)(3), and (f)(3) of this section apply only with respect to statements and notifications filed more than 30 days after July 6, 1977. Paragraph (d) applies only with respect to sales of stock made more than 30 days after July 6, 1977. All other provisions of this section apply with respect to transactions after August 22, 1964.

[FR Doc. 79-36793 Filed 11-28-79; 8:45 am]

BILLING CODE 4830-01-M

## 26 CFR Part 1

[T.D. 7657]

### Income Tax; Taxable Years Beginning After December 31, 1953; Treatment of Losses From Certain Guarantee Agreements

**AGENCY:** Internal Revenue Service, Treasury.

**ACTION:** Final regulations.

**SUMMARY:** This document contains final regulations relating to the treatment of losses resulting from payments made in discharge of certain guarantee agreements. Changes to the applicable law were made by the Tax Reform Act of 1976. These regulations would provide the public with the guidance needed to comply with the changes.

**DATES:** The new regulations are effective for losses incurred on guarantee agreements made after December 31, 1975, in taxable years beginning after that date.

**FOR FURTHER INFORMATION CONTACT:** Douglas W. Charnas of the Legislation

and Regulations Division, Office of Chief Counsel, Internal Revenue Service, 1111 Constitution Avenue, NW., Washington, D.C. 20224 (Attention: CC:LR:T) (202-566-3346).

#### SUPPLEMENTARY INFORMATION:

##### Background

On September 15, 1978, proposed amendments to the Income Tax Regulations (26 CFR Part 1) under section 166 of the Internal Revenue Code of 1954 were published in the *Federal Register* (43 FR 41237). These amendments were proposed to conform the regulations to section 605 of the Tax Reform Act of 1976 (90 Stat. 1575) (hereinafter referred to as "the Act") and are issued under the authority contained in section 7805 of the Internal Revenue Code of 1954 (68A Stat. 917; 26 U.S.C. 7805). No public hearing was requested or held. After consideration of all comments received regarding the proposed amendments, those amendments are adopted as revised by this Treasury decision.

##### Description of Changes

Certain technical changes have been made to the proposed amendments in response to public comments. Paragraphs (a) and (b) of § 1.166-9 are amended to clarify several points. This section applies to taxpayers who enter into an agreement in the course of their trade or business to act as a guarantor, endorser, or indemnitor, or to act in a manner essentially equivalent to a guarantor, endorser, or indemnitor or other secondary obligor. Both the principal and interest amounts of a debt on which the taxpayer is a guarantor, endorser, or indemnitor are subject to this section. The interest on the debt may not be deducted under section 163 of the Code.

Paragraph (c) is amended to make clear that the rules of paragraph (c) relating to obligations issued by corporations apply to payments whenever made, and not just to payments resulting in losses incurred on guarantee agreements made after December 31, 1975. Paragraph (d)(3) is amended to make clear that an agreement is considered as entered into before the obligation became worthless (or partially worthless) if, at the time the agreement was entered into, there was a reasonable expectation on the part of the taxpayer that the taxpayer would not be called upon to pay the debt (subject to such agreement) without full reimbursement. A new paragraph (e)(4) is added to make clear that the regulations under section 166 apply to all taxpayers, and not just to taxpayers who are individuals.

**Drafting Information**

The principal author of these final regulations is Douglas W. Charnas of the Legislation and Regulations Division, Office of Chief Counsel, Internal Revenue Service. However, personnel from other offices of the Internal Revenue Service and Treasury Department participated in developing the final regulations, both on matters of substance and style.

*Adoption of Amendments to the Regulations*

Accordingly, the amendments to 26 CFR Part 1, as proposed, are hereby adopted, except that § 1.166-9 as set forth in paragraph 4 of the notice of proposed rulemaking is amended as follows:

1. Paragraphs (a) and (b) are revised to read as set forth below.
2. A new sentence is added immediately at the end of paragraph (c) to read as set forth below.
3. Two new sentences are added immediately at the end of paragraph (d) (3) to read as set forth below.
4. The first sentence of paragraph (e) (1) is revised to read as set forth below.
5. A new paragraph (e) (4) is added immediately after paragraph (e) (3) to read as set forth below.

**§ 1.166-9 Losses of guarantors, endorsers, and indemnitors incurred, on agreements made after December 31, 1975, in taxable years beginning after such date.**

(a) *Payment treated as worthless business debt.* This paragraph applies to taxpayers who, after December 31, 1975, enter into an agreement in the course of their trade or business to act as (or in a manner essentially equivalent to) a guarantor, endorser, or indemnitor of (or other secondary obligor upon) a debt obligation. Subject to the provisions of paragraphs (c), (d), and (e) of this section, a payment of principal or interest made during a taxable year beginning after December 31, 1975, by the taxpayer in discharge of part or all of the taxpayer's obligation as a guarantor, endorser, or indemnitor is treated as a business debt becoming worthless in the taxable year in which the payment is made or in the taxable year described in paragraph (e) (2) of this section. Neither section 163 (relating to interest) nor section 165 (relating to losses) shall apply with respect to such a payment.

(b) *Payment treated as worthless nonbusiness debt.* This paragraph applies to taxpayers (other than corporations) who, after December 31, 1975, enter into a transaction for profit, but not in the course of their trade or business, to act as (or in a manner essentially equivalent to) a guarantor, endorser, or indemnitor of (or other secondary obligor upon) a debt obligation. Subject to the provisions of paragraphs (c), (d), and (e) of this section, a payment of principal or interest made during

a taxable year beginning after December 31, 1975, by the taxpayer in discharge of part or all of the taxpayer's obligation as a guarantor, endorser, or indemnitor is treated as a worthless nonbusiness debt in the taxable year in which the payment is made or in the taxable year described in paragraph (e) (2) of this section. Neither section 163 nor section 165 shall apply with respect to such a payment.

(c) *Obligations issued by corporations.*  
\* \* \* The rule of this paragraph (c) applies to payments whenever made (see paragraph (f) of this section).

(d) *Certain payments treated as worthless debts.* \* \* \*

(3) \* \* \* See §§ 1.166-2 and 1.166-3 for rules on worthless and partially worthless debts. For purposes of this paragraph (d)(3), an agreement is considered as entered into before the obligation became worthless (or partially worthless) if there was a reasonable expectation on the part of the taxpayer at the time the agreement was entered into that the taxpayer would not be called upon to pay the debt (subject to such agreement) without full reimbursement from the issuer of the obligation.

(e) *Special rules—(1) Reasonable consideration required.* Treatment as a worthless debt of a payment made by a taxpayer in discharge of part or all of the taxpayer's agreement to act as a guarantor, endorser, or indemnitor of an obligation is allowed only if the taxpayer demonstrates that reasonable consideration was received for entering into the agreement. \* \* \*

(4) *Taxpayer defined.* For purposes of this section, except as otherwise provided, the term "taxpayer" means any taxpayer and includes individuals, corporations, partnerships, trusts and estates.

**Jerome Kurtz,**  
*Commissioner of Internal Revenue.*

Approved: November 16, 1979.  
**Donald C. Lubick,**  
*Assistant Secretary of the Treasury.*

**§ 1.166 [Removed]**

Paragraph 1. Section 1.166 and the historical note are deleted.

Par. 2. Section 1.166-5 is amended by revising paragraph (c) to read as follows:

**§ 1.166-5 Nonbusiness debts.**

(c) *Guaranty of obligations.* For provisions treating a loss sustained by a guarantor of obligations as a loss resulting from the worthlessness of a debt, see §§ 1.166-8 and 1.166-9.

Par. 3. Section 1.166-8 is amended by revising the caption and adding a new paragraph (d) at the end of the section. As revised, the section reads as follows:

**§ 1.166-8 Losses of guarantors, endorsers, and indemnitors incurred on agreements made before January 1, 1976.**

(d) *Effective date.* This section applies only to losses, regardless of the taxable year in which incurred, on agreements made before January 1, 1976.

Par. 4. The following new section is added immediately after § 1.166-8:

**§ 1.166-9 Losses of guarantors, endorsers, and indemnitors incurred, on agreements made after December 31, 1975, in taxable years beginning after such date.**

(a) *Payment treated as worthless business debt.* This paragraph applies to taxpayers who, after December 31, 1975, enter into an agreement in the course of their trade or business to act as (or in a manner essentially equivalent to) a guarantor, endorser, or indemnitor of (or other secondary obligor upon) a debt obligation. Subject to the provisions of paragraphs (c), (d), and (e) of this section, a payment of principal or interest made during a taxable year beginning after December 31, 1975, by the taxpayer in discharge of part or all of the taxpayer's obligation as a guarantor, endorser, or indemnitor is treated as a business debt becoming worthless in the taxable year in which the payment is made or in the taxable year described in paragraph (e)(2) of this section. Neither section 163 (relating to interest) nor section 165 (relating to losses) shall apply with respect to such a payment.

(b) *Payment treated as worthless nonbusiness debt.* This paragraph applies to taxpayers (other than corporations) who, after December 31, 1975, enter into a transaction for profit, but not in the course of their trade or business, to act as (or in a manner essentially equivalent to) a guarantor, endorser, or indemnitor of (or other secondary obligor upon) a debt obligation. Subject to the provisions of paragraphs (c), (d), and (e) of this section, a payment of principal or interest made during a taxable year beginning after December 31, 1975, by the taxpayer in discharge of part or all of the taxpayer's obligation as a guarantor, endorser, or indemnitor is treated as a worthless nonbusiness debt in the taxable year in which the payment is made or in the taxable year described in paragraph (e)(2) of this section. Neither section 163 nor section 165 shall apply with respect to such a payment.

(c) *Obligations issued by corporations.* No treatment as a worthless debt is allowed with respect to a payment made by the taxpayer in discharge of part or all of the taxpayer's obligation as a guarantor, endorser, or indemnitor of an obligation issued by a corporation if, on the basis of the facts and circumstances at the time the

obligation was entered into, the payment constitutes a contribution to capital by a shareholder. The rule of this paragraph (c) applies to payments whenever made (see paragraph (f) of this section).

(d) *Certain payments treated as worthless debts.* A payment in discharge of part or all of taxpayer's agreement to act as guarantor, endorser, or indemnitor of an obligation is to be treated as a worthless debt only if—

(1) The agreement was entered into in the course of the taxpayer's trade or business or a transaction for profit;

(2) There was an enforceable legal duty upon the taxpayer to make the payment (except that legal action need not have been brought against the taxpayer); and

(3) The agreement was entered into before the obligation became worthless (or partially worthless in the case of an agreement entered into in the course of the taxpayer's trade or business). See §§ 1.166-2 and 1.166-3 for rules on worthless and partially worthless debts. For purposes of this paragraph (d)(3), an agreement is considered as entered into before the obligation became worthless (or partially worthless) if there was a reasonable expectation on the part of the taxpayer at the time the agreement was entered into that the taxpayer would not be called upon to pay the debt (subject to such agreement) without full reimbursement from the issuer of the obligation.

(e) *Special rules—(1) Reasonable consideration required.* Treatment as a worthless debt of a payment made by a taxpayer in discharge of part or all of the taxpayer's agreement to act as a guarantor, endorser, or indemnitor of an obligation is allowed only if the taxpayer demonstrates that reasonable consideration was received for entering into the agreement. For purposes of this paragraph (e)(1), reasonable consideration is not limited to direct consideration in the form of cash or property. Thus, where a taxpayer can demonstrate that the agreement was given without direct consideration in the form of cash or property but in accordance with normal business practice or for a good faith business purpose, worthless debt treatment is allowed with respect to a payment in discharge of part or all of the agreement if the conditions of this section are met. However, consideration received from a taxpayer's spouse or any individual listed in section 152(a) must be direct consideration in the form of cash or property.

(2) *Right of subrogation.* With respect to a payment made by a taxpayer in discharge of part or all of the taxpayer's

agreement to act as a guarantor, endorser, or indemnitor where the agreement provides for a right of subrogation or other similar right against the issuer, treatment as a worthless debt is not allowed until the taxable year in which the right of subrogation or other similar right becomes totally worthless (or partially worthless in the case of an agreement which arose in the course of the taxpayer's trade or business).

(3) *Other applicable provisions.* Unless inconsistent with this section, other Internal Revenue laws concerning worthless debts, such as section 111 relating to the recovery of bad debts, apply to any payment which, under the provisions of this section, is treated as giving rise to a worthless debt.

(4) *Taxpayer defined.* For purposes of this section, except as otherwise provided, the term "taxpayer" means any taxpayer and includes individuals, corporations, partnerships, trusts and estates.

(f) *Effective date.* This section applies to losses incurred on agreements made after December 31, 1975, in taxable years beginning after such date. However, paragraph (c) of this section also applies to payments, regardless of the taxable year in which made, under agreements made before January 1, 1976.

[FR Doc. 79-36792 Filed 11-29-79; 8:45 am]

BILLING CODE 4830-01-M

## 26 CFR Part 31

[T.D. 7656]

### Employment Taxes; Applicable on or After January 1, 1955; Wage and Tax Statements Furnished to Employees

**AGENCY:** Internal Revenue Service, Treasury.

**ACTION:** Final regulations.

**SUMMARY:** This document provides final regulations relating to the requirement that employers furnish Form W-2, Wage and Tax Statement, to employees whose employment is terminated before the end of the year.

**EFFECTIVE DATE:** The amendments are effective November 29, 1979.

**FOR FURTHER INFORMATION CONTACT:** David B. Cubeta of the Legislation and Regulations Division, Office of the Chief Counsel, Internal Revenue Service, 1111 Constitution Avenue, NW, Washington, D.C. 20224 (Attention: CC:LR:T) (202-566-3926).

#### Background and Explanation

On July 2, 1979, the *Federal Register* published a proposed amendment to the Employment Tax Regulations (26 CFR

Part 31) under section 6051 of the Internal Revenue Code of 1954 concerning the time within which employers must furnish Forms W-2 to employees whose employment is terminated before the end of the calendar year. The amendment was proposed to change the rule that the employer must furnish the form to the employee within 30 days of the last payment of wages. The rule contained in the proposed regulations provides that the employer may furnish the form at any time after the termination of employment but no later than January 31 of the following calendar year. However, if the employee requests that the form be furnished at an earlier time, the rule requires that the form be furnished within 30 days of the request or within 30 days after the last payment of wages, whichever is later.

Although no public hearing was requested or held, numerous written comments were received. Nearly all of the commentators supported the new rule and urged its adoption because of the reduction in paperwork and cost that would result from the preparation and mailing of the form at the end of the year. However, a few comments were critical of the proposed rule for requiring the employer to comply with an employee's request that the form be furnished at an earlier time. This requirement has been retained in the final regulations because it appears that Congress in enacting section 6051(a) contemplated that an employee whose employment is terminated before the end of the calendar year should be able to obtain the Form W-2 prior to the end of the year.

Another comment suggested that the proposed rule be changed to require the employee's request to be in writing in order to enable the employer to document his compliance with the rules. This suggestion has not been adopted because it is believed that the potential benefits of a written request requirement are outweighed by the paperwork burden that the rule would impose.

Therefore, after consideration of all comments received, this Treasury decision adopts the amendments as proposed. The effectiveness of this regulation will be monitored through comments received from the public and from within the Internal Revenue Service.

#### Drafting Information

The principal author of these regulations is David B. Cubeta of the Legislation and Regulations Division of the Office of Chief Counsel, Internal Revenue Service. However, personnel

from other offices of the Internal Revenue Service and Treasury Department participated in developing the regulation, both on matters of substance and style.

#### *Adoption of Amendments to the Regulations*

Accordingly, the proposed amendments to 26 CFR Part 31, as set forth in the notice of proposed rulemaking published in the *Federal Register* on July 2, 1979 (44 FR 38572), are hereby adopted without change.

This Treasury decision is issued under the authority contained in sections 6051(c) and 7805 of the Internal Revenue Code of 1954.

Jerome Kurtz,  
Commissioner of Internal Revenue.

Approved: November 19, 1979.

Donald C. Lubick,  
Assistant Secretary of the Treasury.

#### § 31.6051 [Deleted]

Paragraph 1. Section 31.6051 is deleted.

Par. 2. Paragraph (d) of § 31.6051-1 is amended by deleting subparagraph (2)(ii), by redesignating subparagraph (2)(i) as subparagraph (2), and by revising subparagraph (1) to read as follows:

#### § 31.6051-1 Statements for employees.

(d) *Time for furnishing statements—*  
(1) *In general.* Each statement required by this section for a calendar year and each corrected statement required for the year shall be furnished to the employee on or before January 31 of the year succeeding such calendar year. If an employee's employment is terminated before the close of such calendar year, the employer, at his option, shall furnish the statement to the employee at any time after the termination but no later than January 31 of the year succeeding such calendar year. However, if an employee whose employment is terminated before the close of such calendar year requests the employer to furnish him the statement at an earlier time, and if there is no reasonable expectation on the part of both employer and employee of further employment during the calendar year, then the employer shall furnish the statement to the employee on or before the later of the 30th day after the day of the request or the 30th day after the day on which the last payment of wages is made. For provisions relating to the filing of the Internal Revenue Service copies of the statement, see § 31.6051-2.  
(2) *Extensions of time.* For good cause shown upon written application by an

employer, the district director or director of a service center may grant an extension of time not exceeding 30 days in which to furnish to employees the statements required by this section. Each application for an extension of time under this subdivision shall be made in writing, properly signed by the employer or his duly authorized agent; shall be addressed to the internal revenue office with which the employer is required to file the Internal Revenue Service copies of the statements; and shall contain a full recital of the reasons for requesting the extension, to aid the internal revenue office in determining the period of extension, if any, which will be granted. Such a request in the form of a letter to the internal revenue office will suffice as an application. The application shall be filed on or before the date prescribed in subparagraph (1) of this paragraph for furnishing the statements required by this section. In any case in which an employer is unable, by reason of illness, absence, or other good cause, to sign a request for an extension, any person standing in close personal or business relationship to the employer may sign the request on his behalf, and shall be considered as a duly authorized agent for this purpose, provided the request sets forth a reason for a signature other than the employer's and the relationship existing between the employer and the signer. For provisions relating to extensions of time for filing the Internal Revenue Service copies of the statements, see paragraph (a)(3) of § 31.6081(a)-1.

[FR Doc. 79-36837 Filed 11-28-79; 8:45 am]

BILLING CODE 4830-01-M

## DEPARTMENT OF TRANSPORTATION

### Coast Guard

#### 33 CFR Part 183

[CGD 78-090]

#### Electrical Systems on Recreational Boats

AGENCY: Coast Guard, DOT.

ACTION: Correction to Final Rule.

**SUMMARY:** This document corrects a final rule published in the *Federal Register* on November 5, 1979 amending the requirements for placement of overcurrent protection in the electrical system on a boat. The rule, as published, incorrectly stated the paragraphs being amended. In addition, a typographical and a grammatical error have been corrected in the text of the rule.

**EFFECTIVE DATE:** November 5, 1979.

**FOR FURTHER INFORMATION CONTACT:** Mr. Lars E. Granholm, Office of Boating Safety, G-BBT/TP42, U.S. Coast Guard, Department of Transportation, 2100 Second Street SW., Washington, D.C. 20593 (202/426-4027).

**SUPPLEMENTARY INFORMATION:** In Federal Register Docket 79-34151 appearing at page 63524 in the *Federal Register* of November 5, 1979 the last paragraph including the text of the rule should be changed to read as follows:

In consideration of the foregoing, § 183.455(b) of Title 33 of the Code of Federal Regulations is revised to read as follows:

#### § 183.455 Overcurrent Protection: General.

(b) A manually reset, trip-free circuit breaker or fuse must be placed at the source of power for each circuit or conductor except:

(1) If it is physically impractical to place the circuit breaker or fuse at the source of power, it may be placed within seven inches of the source of power for each circuit or conductor measured along the conductor.

(2) If it is physically impractical to place the circuit breaker or fuse at or within seven inches of the source of power, it may be placed within 40 inches of the source of power for each circuit or conductor, measured along the conductor, if the conductor is contained throughout its entire distance between the source of power and the required circuit breaker or fuse in a sheath or enclosure such as a junction box, control box, or enclosed panel.

(46 U.S.C. 1454; 49 CFR 1.46(n)(1).)

Dated: November 1, 1979.

R. H. Scarborough,  
Vice Admiral, U.S. Coast Guard, Acting  
Commandant.

[FR Doc. 79-36787 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-14-M

## DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

### Health Care Financing Administration

#### 42 CFR Part 405

#### Medicare Program; Beneficiary Liability for Certain Nonreimbursable Services or Items

AGENCY: Health Care Financing Administration (HCFA), HEW.

ACTION: Final rule.

**SUMMARY:** This regulation sets forth an amended rule governing beneficiary

liability under section 1879 of the Social Security Act for certain expenses excluded from Medicare coverage. That section provides that a beneficiary is not required to pay for certain items or services erroneously charged to Medicare, if he did not know, and could not reasonably have been expected to know, that the items or services were not covered by Medicare. The current regulation has been interpreted by some Administrative Law Judges to mean that evidence of an oral statement to the beneficiary is sufficient for finding that he knew items or services were not covered. The purpose of this amended rule is to clarify the current regulation by specifying that a beneficiary will not be found to have knowledge that items and services are not covered unless he has been given written notification from the provider, the fiscal intermediary, or some other appropriate source.

**EFFECTIVE DATE:** This amendment shall be effective on December 31, 1979.

**FOR FURTHER INFORMATION CONTACT:** Jack Wasserman, (301) 594-9301.

**SUPPLEMENTARY INFORMATION:** Section 1879 of the Social Security Act (Limitation on Liability of Beneficiary Where Medicare Claims are Disallowed) relieves a beneficiary from liability for payment if he acted in good faith in accepting items or services for which Medicare payment is later denied because the items or services are determined either to be not medically reasonable and necessary or to constitute custodial care. Under section 1879, Medicare payment may be made for these items or services if neither the provider of the items or services (or other person who accepted assignment under Part B) nor the beneficiary knew, or could reasonably have been expected to know, that the items or services were not covered (see § 405.330). If it is established that the provider of the items or services, but not the beneficiary, knew or could reasonably have been expected to know, that the items or services were not covered, section 1879 authorizes the Secretary to indemnify the individual for payments he has made to the provider. If the beneficiary files a timely request for indemnification, Medicare will pay him the amount he paid the provider or other person, less deductibles and coinsurance, and will then recover the payment from the provider or other person who knew or should have known that the services were not covered (see § 405.331).

The present regulation cites four examples of evidence sufficient to find that a beneficiary knew or could have been expected to know that the services

or items furnished him were excluded from coverage. Each example cites written notice to the beneficiary from an appropriate source that the services or items were not covered. However, the parenthetical phrase "(but shall not be limited to)" which now precedes the examples has been interpreted by some Administrative Law Judges to permit the acceptance of oral notices as adequate evidence that a beneficiary has been advised of noncoverage. We intended, however, the parenthetical phrase to allow written notice from official sources other than those four listed to establish a beneficiary's knowledge of noncoverage. We did not intend the parenthetical phrase to permit an oral notice to establish the beneficiary's knowledge of noncoverage.

This amendment deletes the parenthetical phrase and makes other editorial changes in order to avoid any implication that an oral notice of noncoverage would be acceptable evidence for finding that a beneficiary had knowledge of the noncoverage of items or services furnished him. Thus, the beneficiary will be relieved of liability under section 1879 of the act unless he has received a written notice advising him of the noncoverage of the items or services furnished to him or, in a prior case, he had received written notice with respect to similar or reasonably comparable items and services.

#### Discussion of Comments

In response to the proposed rule we published in 43 FR 52307 on December 7, 1978, we received a total of nine comments: six from providers or their representatives, two from provider associations, and one from a consumer legal aid group.

1. *General Concerns.* A concern shared by several commenters is that the proposed amendment would lead to friction between physician orders services which the provider determines to be excluded from coverage under Medicare. The proposed changes are not intended to exacerbate any problems that may exist between providers and physicians. The requirement of written notice to beneficiaries of noncoverage may avoid some disputes since it clarifies absence of coverage to all concerned.

2. *General Versus Specific Notice of Noncoverage.* Several commenters protested the preferential treatment given Medicare patients. They point out that non-Medicare patients are not protected from liability when furnished services nonreimbursable by a commercial insurer such as Blue Cross.

This objection seems to be aimed at the statute, not at our proposed regulation. As discussed above, it is section 1879 of the Social Security Act that confers this right on Medicare beneficiaries. We could not, by regulation, either deny this right to Medicare beneficiaries or confer it on non-Medicare patients.

The same commenters suggested that providers be required to furnish only a general notice to each Medicare beneficiary admitted to an institution or facility, advising that charges for some items and services may not be covered by Medicare and that the beneficiary would be responsible for such charges.

This suggestion was not adopted because it is contrary to the intent of the law, which is to afford protection to the beneficiary from responsibility for charges for services received which he did not know were not covered. Providers and suppliers of services in the business of delivering health care are better able to assume the responsibility for determining when specific services are excluded from Medicare coverage than is the typical Medicare beneficiary.

3. *Misunderstanding Regarding Regulation Requirements.* Several providers misunderstood the intent of the regulation revision, thinking it would require them to give additional written notices in all situations where noncovered services are to be furnished.

The regulation imposes no such requirements but in order to avoid such misunderstanding, we have added language to make it clear that written notice need be given to the beneficiary only when not "medically reasonable and necessary" or "custodial care" services are to be furnished.

4. *Preference for Oral Rather than Written Notice of Noncoverage.* One commenter believes that the original regulation never intended to specify that only a written notice would be acceptable for notifying a patient of noncoverage. The commenter thinks that the intent of the current regulation was to permit an oral notice of noncoverage to a beneficiary to be acceptable in certain circumstances and that it should therefore remain unchanged. Another commenter specifically objected to the requirement that a Medicare patient be furnished a written notice of noncoverage, believing that oral notice is sufficient.

These comments show the need for clarifying the existing regulation. The requirement that a beneficiary may not be presumed to have known that services were excluded from coverage by Medicare unless he received written notice is to protect the beneficiary from

being held liable for payment when there is any question whether he was in fact clearly notified of the noncoverage. The date and content of a written notice may easily be documented while information given orally is hard to verify, and may be forgotten by the beneficiary, especially when received at a time of stress, such as during admission to a hospital or skilled nursing facility. Permitting oral notice to be the basis for finding beneficiaries liable for what may be substantial costs has resulted in misunderstandings in the past and therefore these objections should be rejected.

5. *Difficulties Encountered in Properly Giving Notice of Noncoverage.* A commenter expressed concern at the difficulties encountered by providers in being able to give proper written notice in all situations.

The provider can only be expected to make a good faith effort to notify the beneficiary. Under § 405.335(b) providers will be reimbursed if they furnish services which they did not know, or could not have been reasonably expected to know, were excluded from Medicare coverage. Therefore the objection need not lead to modification of the regulation.

6. *Favorable Comment.* We received favorable comments from a consumer legal aid group, and from some providers who agreed that this clarification of the regulation should result in improved understanding and administration of the waiver of liability provision.

One provider, while agreeing that a written notice was desirable, pointed out that for the written notice procedure to be effective, providers must receive adequate advance notice when Medicare decides that certain items or services are to be excluded from coverage. We agree, but we also believe that our current procedures provide for timely notice to providers and suppliers of services of coverage decisions.

Since certain of the comments suggest some misunderstanding of the proposed rule, some clarifying revisions have been made to the final rule.

We have inserted explanatory language in § 405.332(a) which refers to §§ 405.310 (g) and (k) and have changed "may" to "must" in the last sentence of § 405.332(a) to make it clear that a written notice *must* be furnished in all cases in order for a beneficiary to be considered to have knowledge of Medicare noncoverage of services.

Section 405.332(a)(4) now contains the words "in writing" to make it clear that only a written notice is acceptable as evidence that a beneficiary has been

previously advised of Medicare's noncoverage of an item or service.

42 CFR 405.332 is amended by revising the title of the section and paragraph (a) to read as follows:

**§ 405.332 Criteria for determining that there was knowledge that certain items or services were excluded from coverage.**

(a) *The individual to whom items or services are furnished.* An individual shall be found to have known that items or services furnished to him were excluded from coverage only if he, or someone acting on his behalf, had been given written notice stating that the items or services were excluded from coverage. This paragraph applies only to items and services excluded from coverage as "custodial care" (§ 405.310(g)) or as "not reasonable and necessary for the diagnosis or treatment of illness or injury" (§ 405.310(k)).

Written notice must consist of the following:

(1) An intermediary or carrier informed the individual (or a person acting on his behalf) in writing that the items or services furnished were not covered;

(2) The group or committee responsible for conducting the utilization review function of the institution furnishing the items or services (see § 405.1035 or § 405.1137) made a finding that the items or services were not covered and informed the individual (or a person acting on his behalf) in writing that the services or items were not covered.

(3) The provider of services or other person furnishing the items of services to the individual informed the individual (or a person acting on his behalf) in writing that the items or services are excluded from coverage and an intermediary or carrier (whichever is appropriate) has determined on the basis of the provider's or other person's past billing practices that the provider or person can effectively distinguish between cases where the items or services furnished are covered under Medicare and where the items or services are excluded from coverage.

(4) In a prior case involving the individual, he was notified in writing under the circumstances referred to in paragraph (a) (1), (2), or (3) of this section that similar or reasonably comparable items or services were excluded from coverage.

For example, program payment may not be made for the treatment of obesity, no matter what form the treatment may take. If a beneficiary treated for obesity with dietary control is informed in writing that Medicare will not pay for treatment of obesity, he will be

presumed to know there will be no payment for subsequent treatment, in any form, of this condition including use, for example, of a combination of exercise machine treatments, diet and medication.

(Sections 1102, 1871, and 1879 of the Social Security Act; 42 U.S.C. 1302, 1395hh, 1395pp.) (Catalog of Federal Domestic Assistance Program No. 13,773, Medicare—Hospital Insurance; No. 13,774, Medicare—Supplementary Medical Insurance.)

Dated: August 23, 1979.

Leonard D. Schaeffer,  
Administrator, Health Care Financing Administration.

Approved: November 13, 1979.

Patricia Roberts Harris,

Secretary.

[FR Doc. 79-35940 Filed 11-29-79; 8:45 am]

BILLING CODE 4110-35-M

## DEPARTMENT OF TRANSPORTATION

### Coast Guard

#### 46 CFR Part 67

[CGD 79-111]

#### Documentation of Vessels

**AGENCY:** Coast Guard, Department of Transportation.

**ACTION:** Final rule.

**SUMMARY:** The Coast Guard has decided to eliminate a requirement that the designation of home port of vessels, in certain instances, be forwarded to the Commandant for his "recommendation". The Coast Guard has also decided to eliminate a requirement that the Commandant "consider" the application for documentation of foreign-built vessels, and American-built, foreign-flag vessels, prior to the granting of a marine document. These requirements are not mandated by statute. Rather, they represent a Coast Guard imposed level of review which is no longer felt to be necessary or efficient. Their elimination will remove a source of delay in the issuance of marine documents and will improve the overall efficiency of the marine documentation program.

**EFFECTIVE DATE:** This amendment is effective on December 31, 1979.

**FOR FURTHER INFORMATION CONTACT:** Mr. Joseph A. Yglesias, Office of Merchant Marine Safety, Merchant Vessel Documentation Division (G-MVD/TP13), Room 1314, Coast Guard Headquarters, 2100 Second Street, S.W., Washington, D.C., 20590, (202) 426-1492.

**SUPPLEMENTARY INFORMATION:** This amendment relates solely to internal Coast Guard policies and procedures. It

is therefore exempt from the notice requirements imposed by 5 U.S.C. 553(b) and is being published as a final rule. Finally, by the authority contained in 5 U.S.C. 553(d)(2), the statement of policy contained in this amendment may be made effective in less than 30 days after its publication in the *Federal Register*.

#### Drafting Information

The principal persons involved in drafting this rule are Mr. Joseph A. Yglesias, Project Manager, Office of Merchant Marine Safety, and Lt. Jack Orchard, Project Counsel, Office of the Chief Counsel.

#### Discussion of the Amendment

*Designation of Home Port.* In 1925, Congress passed a statute which allowed the owner of a vessel to "fix and determine" the vessel's home port "subject to the approval of the Commissioner of Customs" (now the Commandant of the Coast Guard). The Coast Guard, at 46 CFR 67.19-7, retained this high standard of review and required submission to the Commandant whenever the owner sought a home port designation where:

a. The port was not the same as the port nearest the place in the same marine inspection zone where the vessel business of the owner was being conducted.

b. The vessel was foreign-built and not previously documented as a vessel of the United States.

c. The vessel had been transferred to an alien or placed under foreign registry subsequent to being built in the United States or documented as a vessel of the United States.

d. Title had passed by operation of law prior to the documentation as a vessel of the United States or subsequent to the date of acquisition of title by the last owner of record.

e. The vessel was owned by a corporation which qualified as a "citizen of the United States" only under the definition contained in 46 CFR 67.03-7(a).

While each of these occurrences involves a documentation process which deviates from the standard set of procedures, it is no longer felt that the Coast Guard Commandant's approval is necessary as a prerequisite to the approval of an owner's home port designation. Therefore, this requirement is being eliminated and the Officer in Charge, Marine Inspection (OCMI), or the documentation officer for the port at which a designation is filed, may approve the designation. The Commandant's review will not be eliminated entirely, but will, in the future, occur on a random basis after the

OCMI's prior approval of designation. This will eliminate a time delay experienced under the present method of approval. The OCMI or the documentation officer may, if necessary, consult the Commandant for advice prior to approval. For these reasons, the requirement for the Commandant's recommendation contained in 46 CFR 67.19-7, and corresponding references to this recommendation contained in §§ 67.19-9, 67.19-11, and 67.19-13, have been eliminated.

#### Foreign-Built and American-Built, Foreign-Flag Vessels

Prior to the issuance of any marine documents for the registry of a foreign-built vessel or an American-built, foreign-flag vessel, the Commandant's approval, in the past, has been required. The Coast Guard believes that this prior approval step is unnecessary and creates time delays which are unjustified. Marine documents which fall within these two categories will be issued directly by the OCMI, with no prior approval by the Commandant. The Commandant will, however, continue to review these documents on a random basis after they are issued. For these reasons, the review requirements set forth in §§ 67.63-7 and 67.65-9, are eliminated.

This regulation has been reviewed under the Department of Transportation's "Regulatory Policies and Procedures" (44 FR 11034, 15 February 1979). A Final Evaluation has not been prepared since the expected impact of this rule is so minimal that an evaluation is not necessary. It is anticipated that this amendment will not impose, but rather will reduce, costs to both the private and governmental sectors.

In consideration of the foregoing, Part 67 of Title 46, Code of Federal Regulations, is amended as follows:

#### § 67.19-7 [Deleted]

1. By deleting § 67.19-7.
2. By amending § 67.19-9 to read as follows:

#### § 67.19-9 Approval of designation.

The Officer in Charge or documentation officer for the port at which a designation is filed in accordance with § 67.19-1 may approve that designation provided recordable instruments covering each sale, gift, or conveyance (including a conveyance in trust), if any, since the acquisition of title by the last owner of record are presented with the designation. The Officer in Charge, or the documentation officer for the port at which a designation is filed when authorized by

the Officer in Charge, may waive the requirements for production of recordable instruments of conveyances and may approve that designation if he is satisfied that it is impracticable to furnish any such instrument and that the owner has legal title to the vessel.

(Sec. 1, 43 Stat. 947, as amended; 46 U.S.C. 18.)

#### § 67.19-11 [Amended]

3. By deleting paragraph (b) of § 67.19-11.
4. By amending § 67.19-13 to read as follows:

#### § 67.19-13 Vessel to be documented substantially simultaneously with approval of designation.

No officer or employee of the Coast Guard designated to grant approvals of designations of home ports shall approve any such designation unless it appears that the vessel will be documented as a vessel of the United States substantially simultaneously with the approval of the designation by any such officer or employee. When a designation has been approved and the vessel is not so documented, the approval granted shall be cancelled. The Officer in Charge, in subsequently transmitting a copy of a new designation by the same owner shall indicate in his remarks the date of the previous approval and that it was cancelled because of failure to document the vessel.

(Sec. 1, 43 Stat. 947, as amended; 46 U.S.C. 18.)

#### § 67.63-7 [Deleted]

5. By deleting § 67.63-7.

#### § 67.65-9 [Deleted]

6. By deleting § 67.65-9.

(Sec. 2, 23 Stat. 118, as amended, sec. 1, 43 Stat. 947, as amended; 46 U.S.C. 2, 11, 13, 18, 883; 49 CFR 1.46(b).)

**R. H. Scarborough,**  
*Vice Admiral, U.S. Coast Guard, Acting Commandant.*

November 15, 1979.

[FR Doc 79-36788 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-14-M

## National Highway Traffic Safety Administration

### 49 CFR Part 570

[Docket No. 73-9; Notice 14]

### Vehicle in Use Inspection Standards; Spring Spacers

**AGENCY:** National Highway Traffic Safety Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This document amends the Vehicle In Use Inspection Standards (49 CFR Part 570) by eliminating the prohibition against the use of spring spacers installed in a symmetrical configuration, and adds a prohibition against the use of spring spacers installed in an asymmetrical configuration. This was initiated in conformance with NHTSA regulatory procedure in response to a petition and certain safety concerns.

**EFFECTIVE DATE:** November 29, 1979.

**FOR FURTHER INFORMATION CONTACT:** William Ostapenko, Office of State Vehicle Programs, Traffic Safety Programs, National Highway Traffic Safety Administration, Washington, D.C. 20590, 202-426-1597.

**SUPPLEMENTARY INFORMATION:** On September 23, 1976, the National Highway Traffic Safety Administration (NHTSA) issued a Notice of Proposed Rulemaking which proposed permitting the use of two resilient spacers per spring in the suspension system of vehicles with a GVWR of 10,000 pounds or less (Docket No. 73-9; Notice 11, 41 FR 43191, September 30, 1976). The proposal was in response to a petition from JAMCO International, Inc.

In response to this proposal, a number of comments were received. None, however, addressed themselves to whether the use of spacers presented a potential degradation of safety. For this reason, the NHTSA contracted for research to be carried out on the effects of spring sag, uncorrected and corrected by spacers, on vehicle handling and braking. The final report of the contractor was placed in the docket to allow the public an opportunity to comment.

Using a Ford LTD and an American Motors Matador, the contractor carried out a series of normal, low lateral, and emergency, high lateral acceleration maneuvers. These maneuvers were carried out while the vehicles were equipped with sagged springs, and then while the vehicles were equipped with several types of spring spacers installed in symmetric and asymmetric configurations. A configuration is symmetric if the spring spacers are installed on both front springs, both back springs, or all four springs. A configuration is asymmetric if the spring spacers are installed on the springs on either the right or the left side of the vehicle.

The results of the study demonstrated a decrease in vehicle stability during high lateral acceleration maneuvers when spring spacers were installed in

an asymmetrical fashion. One example of this type of maneuver is the double lane change, which is encountered when one vehicle passes another vehicle and then returns to the same lane. The study found no decrease in vehicle stability when the spacers were installed in a symmetrical configuration.

The only comment to the docket concerning this report was from Jamco International, Inc. (JAMCO), a manufacturer of spring spacers. JAMCO pointed out that their spring spacers are sold in sets of four, and purchasers are specifically instructed to install them symmetrically. It was JAMCO's view that spring spacers should only be prohibited when installed asymmetrically.

The agency concurs in this view. Since there is no indication of a safety problem when spacers are installed symmetrically, they should be permitted to be used in this configuration. Conversely, the results of the agency's research demonstrates a safety problem with spacers installed in an asymmetric configuration, and they should be prohibited if they are installed in this configuration. The Vehicle In Use Inspection Standards are amended accordingly.

The agency advises all manufacturers to package and promote their spring spacers in a way that makes clear to purchasers that spacers must be installed in a symmetrical configuration. In light of the agency's findings concerning the safety problems of asymmetrical configurations, the agency will in the future consider the recall of any spacers packaged with inadequate instructions.

The agency has reviewed the regulatory impact of this amendment and found it to be minimal. Since it eliminates a current prohibition, it will impose no burden on either the States or vehicle owners. Further, it imposes no economic burden on any party, as it authorizes a less expensive method of correcting sagged springs than replacing them.

The principal authors of this notice are William Ostapenko of the Office of State Vehicle Programs and Frederic Schwartz, Jr., of the Office of Chief Counsel.

In consideration of the foregoing, § 570.8(a) in Title 49, Code of Federal Regulations, is amended to read as follows:

**§ 570.8 Suspension systems.**

(a) *Suspension condition.* Ball joint seals shall not be cut or cracked. Structural parts shall not be bent or damaged. Stabilizer bars shall be connected. Springs shall not be broken,

or extended above the vehicle manufacturer's design height. Spacers, if installed, shall be installed on both front springs, both rear springs, or on all four springs. Shock absorber mountings, shackles, and U-bolts shall be securely attached. Rubber bushings shall not be cracked, extruded out from or missing from suspension joints. Radius rods shall not be missing or damaged.

(Sec. 103, 108, 119, Pub. L. 89-563, 80 Stat. 718, (15 U.S.C. 1392, 1397, 1407); delegation of authority at 49 CFR 1.50(b)).

Issued on: November 20, 1979.

Joan Claybrook,

Administrator, National Highway Traffic Safety Administration.

[FR Doc. 79-36507 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-59-M

**49 CFR Part 571**

[Docket No. 78-16; Notice 2]

**Occupant Protection in Interior Impact; Impact Protection for the Driver From the Steering Control System; Steering Control Rearward Displacement**

**AGENCY:** National Highway Traffic Safety Administration (NHTSA).

**ACTION:** Final rule.

**SUMMARY:** This notice amends Federal Motor Vehicle Safety Standards Nos. 201, 203 and 204 to extend their applicability to light trucks, buses and multipurpose passenger vehicles (MPV's). The notice is issued in response to the rising death and injury toll involving these vehicles and to petitions by the Center for Auto Safety and the Insurance Institute for Highway Safety requesting that these standards be extended to those vehicles. Applying these standards to light trucks, buses and MPV's will reduce occupant deaths and injuries in those vehicles by requiring the use of energy absorbing material on such interior components as the instrument panel and seat backs (Standard No. 201), by limiting the amount of force that can be exerted on the driver's chest by the steering wheel in frontal crashes (Standard No. 203), and by limiting the rearward movement of the steering assembly in frontal crashes (Standard No. 204).

**EFFECTIVE DATE:** The effective date for the extension of applicability of Standards Nos. 201, 203 and 204 is September 1, 1981.

**ADDRESS:** Petitions for reconsideration should refer to the docket number and be submitted to: Docket Section, Room 5108, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590.

**FOR FURTHER INFORMATION CONTACT:**

Mr. William Smith, Office of Vehicle Safety Standards, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590, (202-426-2242).

**SUPPLEMENTARY INFORMATION:**

This notice amends Standard No. 201, *Occupant Protection in Interior Impact*, and Standard No. 203, *Impact Protection for the Driver From the Steering Control System*, to extend the applicability of those standards to trucks, buses and multipurpose passenger vehicles (MPV's) with a gross vehicle weight rating (GVWR) of 10,000 pounds or less. This notice also amends Standard No. 204, *Steering Control Rearward Displacement*, to extend its applicability to trucks, buses and MPV's with an unloaded vehicle weight of 4,000 pounds or less, instead of all trucks, buses and MPV's with a GVWR of 10,000 pounds or less, as originally proposed in the agency's November 9, 1978, notice of proposed rulemaking (43 FR 52264). As explained below, the agency is initially limiting the extended applicability of Standard No. 204 while it studies methods for dealing with final-stage manufacturer certification difficulties. Similar possible problems with Standard No. 212-76, *Windshield Mounting*, and Standard No. 219-75, *Windshield Zone Intrusion*, led the agency to propose changes in the testing procedures for those standards (44 FR 45426).

For the purposes of Standard No. 204, the agency has determined that these problems would not be encountered in applying the standard to vehicles with an unloaded vehicle weight of 4,000 pounds or less and testing them at their unloaded vehicle weight. Approximately 75 percent of the current sales of light trucks, buses and MPV's with a GVWR of 10,000 pounds or less have an unloaded vehicle weight of 4,000 pounds or less.

This final rule was preceded by a notice proposing the extension of the applicability of Standards Nos. 201, 203 and 204 in November 1978 (43 FR 52264). Private citizens, safety organizations, manufacturers and a manufacturer trade association submitted comments on the proposal. NHTSA has considered all of those comments and the most significant ones are discussed below.

**Safety Need**

Citing the need to reduce the number of deaths and injuries in light trucks, buses and MPV's, the American Automobile Association, the Center for Auto Safety, the Insurance Institute for Highway Safety and State Farm Insurance Companies supported

application of the standards to those vehicles.

Although it did not object to extending the applicability of Standards Nos. 201, 203, and 204 to light trucks, buses and MPV's, General Motors argued that manufacturers should be given a longer lead time to comply with the standards because of the lack of urgent safety need. GM said that allowing a longer leadtime was desirable to ensure compliance, "without costly accelerated [design] programs." Using data from the agency's "Explanation of Rulemaking," GM said that light trucks, buses and MPV's have a fatality rate of 22.4 fatalities per billion miles, compared with a rate of 25.3 fatalities per billion miles for passenger cars. The data GM used covers fatalities during 1977 and all model year vehicles. A new analysis done by NHTSA of 1977 fatalities, reported by the agency's Fatal Accident Reporting System, shows that although older model year light trucks, buses and MPV's may have had a lower fatality rate than passenger cars, beginning with the 1973 model year, the combined fatality rate for light trucks, buses and MPV's began surpassing that of passenger cars. The analysis shows that recent model year passenger cars have a considerably lower fatality rate than light trucks, buses and MPV's. (A copy of that analysis has been placed in the docket.)

In addition to being higher than the combined fatality rate for all sizes of passenger cars, the combined fatality rate of light trucks, buses and MPV's is far higher than the rate for full-size passenger cars. Full-size cars are typically the safest of cars and many of them are comparable in size and weight to light trucks, buses and MPV's. In theory, occupants of larger and heavier vehicles, such as trucks, buses and MPV's, should experience less harmful crash forces, and thus presumably incur fewer or less severe injuries, than occupants of smaller lighter vehicles. Volkswagen has previously objected to a comparison of full-size passenger fatality rates with those for vans, arguing that vans are comparable in weight to intermediate, not full-size passenger cars. Although the unloaded weight of vans and intermediate-size passenger cars may be comparable, vans have a higher gross vehicle weight rating which means that those vehicles can, in actual use, be loaded with substantially more weight than intermediate and even full-size passenger cars.

Volkswagen also questioned the safety need for the proposed rulemaking because of the voluntary compliance by

VW and some other companies with the standards. Although the voluntary effort by some companies is commendable, most manufacturers do not comply with all of the standards in all of their vehicles. Some of the manufacturers who have taken steps to comply with the standard presumably were in part motivated by prior NHTSA rulemaking notices proposing to apply Standards Nos. 201, 203 and 204 to light trucks, buses and MPV's (35 FR 14936, 14940 and 16805). In the absence of a regulation, there is no assurance that non-complying manufacturers will produce complying vehicles and that manufacturers producing currently complying vehicles will continue to comply. Manufacturers who currently comply should experience only minor economic impacts, such as conducting certification tests, as a result of compelling other manufacturers to comply.

**Effectiveness**

The Motor Vehicle Manufacturers Association (MVMA) questioned the potential effectiveness of Standards Nos. 201, 203 and 204. MVMA argued that a study done by Sherman and Huelke of light truck and van accidents found that the standards would have little effect in those vehicles. However, a NHTSA analysis of the crashes reviewed by Sherman and Huelke found that a number of the crashes clearly demonstrated the benefits of equipping light trucks and vans with energy-absorbing instrument panels and steering columns and devices to limit the rearward displacement of the steering column. For example, Sherman and Huelke studied a 15-20 mph head-on crash of a 1976 Chevrolet pickup truck into a tree. The Chevrolet was equipped with a padded instrument panel, an energy-absorbing steering column and a device to limit the rearward displacement of the steering column. They reported, "the results of this case show that both of the major energy absorbing components appeared to have completely activated, both by the vehicle crash and driver impact, providing maximum benefit to the driver. Had this vehicle been one of the other vehicle cases discussed in this section, we feel that the injuries sustained by the driver would have been much more severe."

NHTSA believes further that the Sherman and Huelke study provides information indicating that there is a need for even more improvements in light trucks and vans, such as providing energy-absorbing padding for the lower instrument panel. The agency is studying the question of making

appropriate changes in the performance requirements of the standards to require more protection. However, NHTSA considers it important not to delay extending the current benefits of Standards Nos. 201, 203 and 204 while it reviews possible changes to the standards.

MVMA also argued that a comparison of the injury experience of passenger car steering assemblies with the experience of steering assemblies in light trucks and vans shows that Standards Nos. 203 and 204 "would provide little benefit" in those vehicles. Using data from the agency's original analysis of the injury experience of passenger cars produced before and after Standards Nos. 203 and 204 took effect, MVMA said that the primary benefit of the standards is to reduce moderate instead of severe-to-fatal injuries. It pointed out that 65.6 percent of the steering assembly related injuries in pre-standard cars were minor, 22.7 percent were moderate and 11.9 percent were severe-to-fatal. In post-standard cars, 78.8 percent of the steering assembly related injuries were minor, 10.2 percent were moderate and 11.0 were severe-to-fatal. Thus, in post-standard cars, many previously moderate injuries were only minor injuries. Using data from a Calspan study of light truck and van injuries, MVMA said that 83.5 percent of the steering column related injuries in those vehicles are minor, 4.1 percent are moderate and 12.4 percent are severe-to-fatal. MVMA said that the Calspan data indicate that there is "little room" for a passenger car-type of injury experience change from moderate to minor injuries in light trucks and vans.

However, the Calspan data cited by MVMA are not comparable with the NHTSA data and probably underestimate the percentage of moderate and severe-to-fatal steering assembly related injuries in light trucks and vans. The Calspan data include injuries from all types of impacts (front, rear and side). The NHTSA data, on the other hand, cover only frontal crashes, the type of crashes which are most likely to cause severe-to-fatal steering assembly related injuries. Thus, the percentage of moderate and severe-to-fatal injuries found in the NHTSA data should be greater. In addition, an updated NHTSA analysis of passenger car injury experience, discussed below, shows that Standards Nos. 203 and 204 are effective in reducing both moderate and severe-to-fatal injuries. Further, even if the actual light truck and van injury distribution were the same as found by Calspan, Standards Nos. 203

and 204 would be effective in reducing the number of severe-to-fatal injuries.

Several manufacturers and the MVMA objected to the agency's use of passenger car data to estimate the potential effectiveness of the three standards in light trucks, buses and MPV's. They argued that the agency should instead have conducted a study comparing the accident experience of light trucks, buses and MPV's that currently comply with the standards with the experience of those that do not comply. As explained below, NHTSA concludes that such a study is impractical and that the agency's original and updated analyses of passenger car effectiveness data are valid and support application of the standards to light trucks, buses and MPV's.

The primary difficulty in conducting a study of current light trucks, buses and MPV's is that there is no conclusive information identifying which vehicles are currently in compliance with the standard since no manufacturer is required to certify compliance. For example, International Harvester (IH) requested NHTSA to conduct a study of currently complying light trucks, buses and MPV's saying that its Scout models were designed to comply with the performance requirements of Standards Nos. 201, 203 and 204. However, IH said that if the NHTSA applies the standards to light trucks, buses and MPV's, it will have to retest the Scout, which "could conceivably require some additional redesigning for compliance assurance." NHTSA believes that the analysis the agency conducted of pre-and post-1968 passenger car injury experience, where it was known that passenger cars manufactured on or after January 1, 1968, had to comply with Standards Nos. 201, 203 and 204, provides a sound basis for estimating the potential effectiveness of the standards in other types of vehicles.

Using information recently made available from the agency's national Crash Severity Study, NHTSA has again compared injuries sustained by occupants of cars manufactured before Standards Nos. 201, 203 and 204 went into effect with injuries sustained by occupants of cars manufactured after the standards went into effect. As with the agency's first analysis, cited in the November 9, 1978, notice for this rulemaking, the new analysis examined injuries caused by components covered by Standard No. 201, such as instrument panels, seat backs, arm rests and sun visors. The analysis found that Standard No. 201 reduced severe to fatal occupant injuries (i.e., injuries with an

abbreviated injury scale ranking of 3 or more) by approximately 38 percent. The analysis also found that the probability of an occupant injured in a crash being injured by a component covered by Standard No. 201 was 25.7 percent. Thus, multiplying the probability of injury (i.e., 25.7 percent) by the effectiveness of the standard in reducing serious and fatal injuries (i.e., 38 percent) the analysis estimated that the overall reduction in severe-to-fatal injuries attributable to Standard No. 201 is 9.3 percent.

A similar comparison was made for occupant injuries in cars manufactured before and after Standards Nos. 203 and 204 went into effect. The comparison examined two sets of driver injuries that occurred in frontal crashes. One set consisted of injuries that could be specifically attributed to contact with the steering assembly; the other set consisted of neck, chest and abdominal injuries sustained by drivers in frontal crashes, the types of steering assembly-related injuries that standards are designed to reduce. The comparison found that Standards Nos. 203 and 204 reduced severe-to-fatal injuries by an average of 20.9 percent. The probability of an injured driver receiving an injury attributable to the steering assembly was an average of 19.4 percent. The analysis estimated that Standards Nos. 203 and 204 produced an overall average reduction of 3.7 percent in severe-to-fatal driver injuries.

#### Loading Requirements

At present, Standard No. 204 does not specify the loading requirements for vehicles in the 30 mph fixed barrier crash test required by the standard. In conducting Standard No. 204 compliance tests for passenger cars, the agency has loaded passenger cars to their unloaded vehicle weight (i.e., the weight of the vehicle with all the fluid, such as gas, oil and water, necessary for its operation but without any occupants or cargo). This is the least severe loading condition used in the Federal motor vehicle safety standards that involve crash testing. This notice makes a technical amendment to Standard No. 204 to incorporate the agency long-standing loading practices. Those practices were publicly announced in the compliance test procedures publicly released by the agency when Standard No. 204 first went into effect in 1968. Passenger car certification information provided by manufacturers to NHTSA shows that they have consistently used unloaded vehicle weight as the loading condition in their testing. In some instances, manufacturers have

voluntarily used more severe loading conditions in their certification testing.

#### Commercial Vehicles

Several final stage manufacturers and United Parcel Service requested the agency to exempt vehicles used in commercial applications from the standards. A similar exemption has previously been sought by the Truck Body and Equipment Association (TBEA) for Standard No. 212-76, *Windshield Mounting*, and Standard 219-75, *Windshield Zone Intrusion*. As with the TBEA request, NHTSA concludes that such an exemption should not be adopted since it is not in the interest of safety and is based on vehicle use instead of vehicle type. Such an exemption would mean that standards would be applied on the basis of the commercial or private use of the vehicle and not upon the safety needs of a particular vehicle type. Since the safety needs of similar vehicles usually are similar, it would be inappropriate to treat one set of vehicles differently merely because they are used commercially.

The National Traffic and Motor Vehicle Safety Act contemplates the application of the standards based on vehicle type instead of vehicle use. Basing a standard on vehicle use would present this agency with difficult enforcement problems. It would also place a manufacturer in the difficult position of having to assess in advance the potential future use of the vehicle it produces. In addition, basing standards application on vehicle use does not recognize that a vehicle may have two or more uses during its lifetime.

For all these reasons, the agency concludes that applying standards based on vehicle use would not be appropriate.

#### Walk-In Vans

GM, MVMA and several final-stage manufacturers requested the agency to exempt walk-in vans (i.e., the "step-van" city delivery type of vehicle that permits a person to enter the vehicle without stooping) from Standards Nos. 201, 203 and 204. In the case of Standard No. 201, they argued that this type of vehicle frequently has none of the components covered by the standard, such as arm rests, sun visors and instrument panels to the right of the steering assembly. However, those vehicles do have an instrument panel in front of the driver and some walk-in vans do have a front passenger seat and an instrument panel in front of that seat which may be struck by an occupant during a crash. Applying Standard No. 201 to those vehicles will require the instrument panel to be

added to cushion occupant impacts. Based on the proven effectiveness of Standard No. 201 in passenger cars, the agency is extending the performance requirements of the standard to include walk-in vans and MPV's.

The manufacturers argued that walk-in vans should be exempt from Standards Nos. 203 and 204 also. They said that the driver steering assembly configuration found in walk-in vans makes it improbable that compliance with the standard will reduce drivers' injuries. They noted that the steering column is mounted in those vehicles at an angle of 55-60 degrees, compared to the mounting angle of 30 degrees found in conventional trucks, and the columns in walk-in vans move upward rather than rearward in a crash. The manufacturers also argued that these vehicles are generally used in urban areas, where there is more slow speed traffic than in rural areas. They pointed out that because of these factors, the agency has previously exempted walk-in vans from Standards Nos. 212-76, *Windshield Retention*, and 219-75, *Windshield Zone Intrusion*. The agency agrees that current energy absorbing steering column designs probably would provide little, if any, protection in walk-in vans because of their unique driver/steering column configuration, and thus is exempting walk-in vans for the present.

#### Belts in Forward Control Vehicles

Although they did not object to requiring lap-shoulder belts in forward control vehicles as proposed in the agency's November 9, 1978 notice, several manufacturers and the MVMA objected to what they interpreted as a conflict between the agency's proposal and the current requirements of Standard No. 208, *Occupant Crash Protection*. They argued that the agency's proposal not only would require lap and shoulder belts in forward control vehicles, but would also require such belts in open-body vehicles, convertibles and walk-in vans, which currently only have to have lap belts. The agency's proposal was directed only toward forward control vehicles and was meant to supersede the current requirements for those vehicles set in Standard No. 208. For organizational simplicity, the agency is making a technical amendment to Standard No. 208 so that all belt requirements are centralized in that standard. The amendment only adopts the proposed change to the forward control vehicle belt requirements. It does not change the current belt requirements for open-body vehicles, convertibles and walk-in vans.

MVMA requested the agency to require lap and shoulder belts in forward control vehicles for only one model year. MVMA did not provide any justification for that request. NHTSA believes that the important protection of lap and shoulder belts should be available to all forward control vehicles manufactured on or after September 1, 1981, and declines to adopt the MVMA request.

#### Upgrading of Standard

In their comments, the Center for Auto Safety and the Insurance Institute for Highway Safety renewed their requests that the agency set new performance requirements for Standard No. 203 to provide additional protection in angular impacts. The agency has conducted some preliminary testing to determine what additional requirements may be appropriate to increase protection in angular impacts. In addition, the agency's National Center for Statistics and Analysis has recently begun a special study to collect accident data on 1973 and later model vehicles to gather additional information on the effectiveness of energy absorbing steering assemblies in angular and other crashes. Based on that data, NHTSA will make a determination of what further changes are needed in the standard.

The American Automobile Association asked the agency to delay application of Standard No. 203 until upgraded performance requirements are developed. However, because the agency does not want to delay providing the occupants of light trucks, buses and MPV's with the safety benefits of Standard No. 203, the agency is extending the standards to those vehicles while it continues to consider the feasibility of additional performance requirements.

NHTSA is also considering possible additional requirements for Standard No. 201. The agency has scheduled a meeting for December 11, 1979, so that the public can present its views and ideas on ways of improving protection for children involved in vehicle collisions. In the September 4, 1979, notice announcing the meeting, the agency specifically asked for comments on possible improvements to the interior padding of vehicles to provide additional protection for children (44 FR 51623).

#### Heavy Trucks

In the November 9, 1978 notice, NHTSA announced that it was evaluating whether to extend the applicability of Standards Nos. 201, 203 and 204 to heavy trucks (i.e., trucks with

a GVWR of more than 10,000 pounds) and solicited comments on appropriate performance requirements for those vehicles.

In their comments, the Motor Vehicle Manufacturers Association, Freightliner and International Harvester all opposed an extension of the standards to trucks with a GVWR greater than 10,000 pounds, arguing that there is no data showing a safety need for applying the standards to those vehicles. They also argued that because of the size and weight of heavy trucks, occupants in these vehicles do not experience the same energy transfers in a crash than passenger car occupants experience and thus theoretically should incur fewer or less severe injuries. At the agency's recent meeting on heavy truck safety, several participants provided information on the need for greater crash protection for drivers of heavy trucks. NHTSA is currently analyzing that information to determine what additional heavy truck regulatory action may be needed.

#### Miscellaneous Comments

MVMA pointed out that Standard No. 201 currently requires two sun visors in a vehicle and requested that a second visor not be required if there is no front passenger seat. NHTSA agrees that such a change is appropriate and has made the necessary amendment to the standard.

Jeep Corp. objected to the application of Standard No. 201 to open-body MPV's, arguing that for Jeep to locate padding in the expected head impact area it would have to raise its padding or lower its seat, both of which it claimed would interfere with the driver's forward visibility. Jeep's comment appears to reflect a misunderstanding of Standard No. 201. The performance requirements of the standard only apply to areas of the instrument panel that are within the head impact area of each designated seating position. (The head impact area is the portion of the vehicle's interior that can be contacted by a headform representing an occupant's head.) Thus, if a portion of Jeep's vehicle instrument panel is not within the head impact area, it does not have to comply. For portions of the panel that are within the head impact area, Jeep can make structural changes to the instrument panel to meet Standard No. 201 without adding additional padding. Therefore, Jeep's requested exemption for all open-body vehicles is denied.

One final stage manufacturer, Boyertown Auto Body Works, asked NHTSA whether its driver side instrument panel was within the

exceptions to Standard No. 201 and, if not, sought to have its instrument panel construed to be a console assembly, which is exempt from the standard. Such an interpretation is not acceptable since Boyertown clearly labels the area in question as an instrument panel in its engineering drawings. However, according to the engineering drawing provided by Boyertown, the limited section on the instrument panel of concern to Boyertown is within the area exempted by § 3.1.1(d) of the standard. That section provides that the area of the interior immediately forward of the steering column is exempt from the standard.

#### Costs and Leadtime

NHTSA has considered the economic and other impacts of this final rule and determined that they are not significant within the meaning of Executive Order 12044 and the Department of Transportation's policies and procedures for implementing that order. The agency's assessment of the benefits and economic consequences of this proposal are contained in a regulatory evaluation which has been placed in the public docket. As explained previously, copies of the regulatory evaluation can be obtained by writing NHTSA's docket section at the address given in the beginning of this final rule.

As previously detailed in this notice, the agency has examined the effectiveness of Standards Nos. 201, 203 and 204 in passenger cars and concluded that those standards have brought about a substantial reduction in overall injuries occurring to the passengers in those vehicles. Because they share the same driving environment as occupants in passenger cars, occupants in light trucks, buses and MPV's face a similar risk of injury posed by hazardous instrument panels and rigid steering columns. Based on its evaluation of the effectiveness of Standards Nos. 201, 203 and 204 in passenger cars, the agency has concluded that applying those standards to light trucks, buses, and MPV's can result in a reduction of 120 to 240 fatalities and 4,400 to 8,900 serious injuries per year when all those vehicles comply with the standards.

The agency's cost estimate for meeting Standards Nos. 201, 203 and 204 in light trucks, buses and MPV's take into account that many manufacturers have equipped some of their vehicles with components designed to meet the performance requirements of the standards. Those components may need little or no redesigning to fully comply with the standards. For example, American Motors, Chrysler, Ford,

General Motors, International Harvester and Volkswagen commented that some, if not all, of their vehicles currently have components designed to comply with the standards or they will install such components in some of their vehicles by the 1981 model year.

Only two manufacturers, Nissan and Ford, provided any information about the costs associated with complying with the standards. Nissan said that the cost associated with complying with all three standards was \$30. Ford estimated the cost for compliance with Standard No. 201 as \$10 per vehicle; based on preliminary design assumptions, Ford put the cost of complying with Standards Nos. 203 and 204 in its van-type trucks, buses and MPV's at \$120 per vehicle.

To provide the agency with additional information about the estimated costs of complying with the three standards, NHTSA contracted with the John Z. DeLorean Corp. to evaluate current vehicles and determine what changes would be needed to bring the vehicles into compliance. Based on its review of current foreign and domestic light trucks, buses and MPV's, DeLorean concluded that the total cost of compliance with the three standards would add a sales weighted average of \$16 to the retail price of those vehicles. The DeLorean study reported that the vehicles requiring the most changes to meet Standards Nos. 201, 203 and 204 were van-type trucks, buses and MPV's made by GM and Ford. DeLorean estimated that GM and Ford van-type vehicles would require a \$27 increase in consumer price to comply with Standards Nos. 203 and 204 and a price increase ranging between \$6 and \$15 to comply with Standard No. 201. The agency believes that the substantial difference between DeLorean's and Ford's estimate of the cost of compliance with Standards Nos. 203 and 204 may be due to Ford's overestimate of the anticipated changes needed in the vehicles based on its preliminary design assumptions.

The agency's November 1978 notice proposed an effective date of September 1, 1980, for Standard No. 201 for all vehicles and for Standards Nos. 203 and 204 for nonforward control vehicles. An effective date of September 1, 1981, was proposed for Standards Nos. 203 and 204 for forward control vehicles to allow manufacturers additional time to make the necessary changes in those vehicles. In their comments on Standard 201, Chrysler and Ford said they could meet the standard in all their vehicles by the proposed effective date. Nissan, Toyo Kogyo and International Harvester (IH)

requested from 18 to 24 months leadtime. General Motors requested 2½ years' leadtime and American Motors requested 3 years. As a part of its NHTSA-funded study of the costs of complying with the standard, the DeLorean Corp. also examined the leadtime necessary to comply with the standards. For Standard No. 201, the DeLorean study concluded that only one year was needed for all vehicles except van-type trucks, buses and MPV's manufactured by Chrysler and GM, which needed two years.

For Standards Nos. 203 and 204, Chrysler said that all its vehicles, except its incomplete forward control van-type vehicles, can comply by September 1, 1980. Chrysler did not provide an estimate of leadtime needed for its incomplete forward control vans. Nissan, Toyo Kogyo and IH requested from 18 to 24 months leadtime. Ford said its 1980 model year F-series trucks and Bronco models would comply with the standards and the Courier truck chassis cab imported by Ford would comply by September 1, 1981. Ford requested until September 1, 1982, for its van-type trucks, buses and MPV's. General Motors requested 2½ years for all its vehicles and American Motors requested three years.

The DeLorean study concluded that 18-24 months of leadtime was needed for all models, except those made by Ford, which would require three years. DeLorean made its estimate of leadtime for Ford based on an assumption that Ford would need extra steering assembly tooling facilities. However, since Ford plans to introduce complying components on its 1980 model F series trucks and Bronco models, Ford has apparently developed the needed tooling capacity.

Based on its analysis of the DeLorean study and of the industry's comments, NHTSA concludes that setting an effective date of September 1, 1981, will allow sufficient time for all manufacturers to comply with the standards. This action provides an additional year for all light trucks, buses and MPV's to meet Standard No. 201 and for nonforward control vehicles to meet Standards Nos. 203 and 204.

The principal authors of this notice are William Smith, Office of Vehicle Safety Standards, and Stephen Oesch, Office of Chief Counsel.

In consideration of the foregoing, the following amendments are made in Part 571, Title 49 of the Code of Federal Regulations:

1. Section S2 of Standard No. 201, *Occupant Protection in Interior Impact* (49 CFR 571.201), is amended to read as follows:

§ 571.201 Standard No. 201; Occupant protection in interior impact.

S2. *Application.* This standard applies to passenger cars and to multipurpose passenger vehicles, trucks and buses with a GVWR of 10,000 pounds or less.

2. Section S3.4.1 of Standard No. 201 is amended to read as follows:

S3.4.1 A sun visor that is constructed of or covered with energy-absorbing material shall be provided for each front outboard designated seating position.

3. The title of Section S3 of Standard No. 201 is amended to read as follows:

S3. *Requirements for passenger cars and for trucks, buses and multipurpose passenger vehicles with a GVWR of 10,000 pounds or less manufactured on or after September 1, 1981.*

4. Sections S2 and S4 of Standard No. 203, *Impact Protection for the Driver from the Steering Control System* (49 CFR 571.203), are amended and a new S5 is added to Standard No. 203 to read as follows:

§ 571.203 Standard No. 203; Impact protection for the driver from the steering control system.

S2. *Application.* This standard applies to passenger cars and to multipurpose passenger vehicles, trucks and buses with a GVWR of 10,000 pounds or less. However, it does not apply to vehicles that conform to the frontal barrier crash requirements (S5.1) of Standard No. 208 (49 CFR 571.208) by means of other than seat belt assemblies. It also does not apply to walk-in vans.

S4. *Requirements.* Each passenger car and each multipurpose passenger vehicle, truck and bus with a GVWR of 10,000 pounds or less manufactured on or after September 1, 1981, shall meet the requirements of S5.1 and S5.2.

S5. *Impact protection requirements.*

S5.1 When the steering control system is impacted by a body block in accordance with Society of Automotive Engineers Recommended Practice J944, "Steering Wheel Assembly Laboratory Test Procedure," December 1965, or an approved equivalent, at a relative velocity of 15 miles per hour, the impact force developed on the chest of the body block transmitted to the steering control system shall not exceed 2,500 pounds.

S5.2 The steering control system shall be so constructed that no components or attachments, including horn actuating mechanisms and trim hardware, can catch the driver's clothing or jewelry during normal driving maneuvers.

5. Sections S2 and S4 of Standard No. 204, *Steering Control Rearward*

*Displacement* (49 CFR 571.204), are amended and new sections S5 and S6 are added to Standard No. 204 to read as follows:

§ 571.204 Standard No. 204; Steering control rearward displacement.

S2. *Application.* This standard applies to passenger cars and to multipurpose passenger vehicles, trucks and buses with a GVWR of 10,000 pounds or less. However, it does not apply to walk-in vans.

S4. *Requirements.* Each passenger car and each multipurpose passenger vehicle, truck and bus with an unloaded weight of 4,000 pounds or less manufactured on or after September 1, 1981, shall meet the requirement of S5.1.

S5. *Rearward displacement requirements.*

S5.1 The upper end of the steering column and shaft shall not be displaced horizontally rearward parallel to the longitudinal axis of the vehicle relative to an undisturbed point on the vehicle more than 5 inches, determined by dynamic measurement, when the vehicle, loaded to its unloaded vehicle weight, is impacted perpendicularly into a fixed collision barrier at a forward longitudinal velocity of 30 miles per hour.

6. Section S4.2.2 of Standard No. 208, *Occupant Crash Protection* (49 CFR 571.208), is amended to change the phrase, "except that forward control vehicles," to "except that forward control vehicles manufactured prior to September 1, 1981."

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 [15 U.S.C. 1392, 1407]; delegation of authority at 49 CFR 1.50)

Issued on November 20, 1979.

Joan Claybrook,  
Administrator.

[FR Doc. 79-36653 Filed 11-28-79; 8:45 am]  
BILLING CODE 4910-59-M

49 CFR Part 575

[Docket 25; Notice 35]

Consumer Information Regulations;  
Uniform Tire Quality Grading

AGENCY: National Highway Traffic Safety Administration (NHTSA).

ACTION: Final rule.

SUMMARY: This notice amends the Uniform Tire Quality Grading (UTQG) Standards through minor modifications in the format of tire tread labels used to convey UTQG information. The modifications are intended to assure that tires are labeled with the correct

UTQG grades, to permit flexibility in the design of labels, and to facilitate consumer access to the grading information.

**EFFECTIVE DATE:** December 1, 1979.

**FOR FURTHER INFORMATION CONTACT:** Dr. F. Cecil Brenner, Office of Automotive Ratings, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, D.C. 20590, 202-426-1740.

**SUPPLEMENTARY INFORMATION:** On January 8, 1979, NHTSA published a request for public comment (44 FR 1814) on a petition for rulemaking submitted by Armstrong Rubber Company asking that the UTQG regulation be amended to permit tire grading information and explanatory material concerning the UTQG system to be furnished to consumers by means of two separate tire tread labels rather than the single label called for in the regulation (49 CFR 575.104(d)(1)(i)(B)). Armstrong, joined by Atlas Supply Company, contended that the chance of mislabeling tires would be reduced, if UTQG grades could be placed on the same label with tire identification information. However, practical limitations exist on the size of tread labels which can be effectively applied and retained on the tire tread surface. Some manufacturers reportedly encountered difficulty in fitting tire identification information, UTQG grades and required UTQG explanatory information on a single label. For this reason, Armstrong and Atlas suggested that UTQG explanatory information be furnished on a separate label adjacent to a label containing UTQG grades and tire identification information.

In view of the favorable comments received in response to NHTSA's request for comment on the Armstrong petition, the agency proposed to modify the tread label format requirements to employ a two-part label format (44 FR 30139; May 24, 1979). NHTSA proposed that Part I of the label contain a display of the UTQG grades applicable to the particular tire while Part II would contain the general explanation of the grading system. At the manufacturer's option Parts I and II could appear on separate labels. To assure that the labels would be legible to consumers, the notice also proposed requirements for orientation of the label text and minimum type size.

Commenters on the proposal were in general agreement that flexibility in the design of tire tread labels is a desirable goal. While some manufacturers expressed the opinion without explanation that two-part labels would be impractical for their operations, others welcomed the proposal as a

means of dealing with label size limitations.

Some commenters favored retention of the original label format pointing out that the proposed label would be slightly longer than its predecessor and arguing that the proposed label would isolate the tire grades from the explanatory material. Some industry sources expressed the opinion that the proposed changes would be of no benefit to consumers.

NHTSA disagrees with these criticisms of the proposal. The new format should increase the length of the label by only a fraction of an inch, if at all, and should not pose a problem to manufacturers wishing to employ a single label. The separation of the grades from the explanatory material should not create confusion since the two parts could be separated by no more than one inch in any case. The agency has reached the conclusion that displaying grades for all three performance categories together on Part I of the label will in fact benefit consumers by facilitating access to the information.

Maximum retainability will be assured with the new format since manufacturers may choose to employ two labels if they are unable to fit all of the necessary information on a single label of a manageable size. Similarly, the possibility of mislabeling will be reduced, because the two-part option makes it possible in all cases to include applicable UTQG grades on tire identification labels. For these reasons, NHTSA has determined to adopt the proposed two-part label format with minor modifications.

Several commenters suggested that orientation of the tread label text should not be specified in the regulation since flexibility in label design would be reduced by such a requirement. However, NHTSA has concluded that since most manufacturer's tire identification labels are arranged with lines of type running perpendicular to the tread circumference, tires are most likely to be displayed so that labels with this orientation will be easily readable by consumers. Therefore, the agency has chosen to retain the proposed requirement regarding label text orientation.

Goodyear Tire & Rubber Company suggested the possibility of printing Part I of the proposed label below Part II, when both parts are contained on a single tread label. NHTSA finds this suggestion unacceptable because the UTQG grades would be difficult to locate if preceded by a body of textual material.

Goodyear also commented on several occasions that specifying a minimum type size for the printing of labels would be of no benefit since many factors other than type size, such as letter style, spacing, and format, contribute to legibility. NHTSA agrees that a minimum type size requirement alone is insufficient to assure the readability of labels. For this reason, NHTSA has chosen to withdraw its proposed minimum type size requirement at this time. The agency will, however, continue to monitor industry compliance with the labeling requirements to ascertain whether a comprehensive set of requirements are necessary to assure that tread labels will be legible to consumers.

The agency has found considerable merit in another Goodyear suggestion, to delete the range of possible grades adjacent to the categories "TRACTION" and "TEMPERATURE" on Part II of the label. These letters were originally included on the label to provide a display on which the grade attributable to a particular tire could be marked. Since grades will now be marked on Part I of the label, the range of possible grades in Part II is superfluous and has been deleted from the required format. If, however, manufacturers wish to display the array of grades on both Part I and Part II of their labels, NHTSA has no objection to this practice.

Goodyear was joined by General Tire & Rubber Company in requesting that NHTSA clarify whether the three category headings, "TREADWEAR," "TRACTION," and "TEMPERATURE," in Part I of the proposed label must be laid out side by side, across the label, or one below the other, down the label. In the interest of flexibility, the regulation makes either of these layouts acceptable, although the relative order of the categories must be maintained to permit easy reference to the explanatory material.

Similarly, several manufacturers recommended that the regulations permit grades to be displayed either to the right of or directly below the grading category to which they apply. Again, to facilitate efficient label design, the regulation permits the use of either of these locations for the display of grades.

Industry commenters asked that NHTSA clarify whether the use of lower case letters in the label text, as set out in Figure 2 of the regulation, precludes manufacturers from printing labels using all capital letters in the label text. The regulation has been modified to permit the optional use of all capital letters in printing the text of Figure 2.

NHTSA wishes to confirm Firestone Tire & Rubber Company's understanding

that the words "Part I" and "Part II" appearing in Figure 2 as proposed are for reference purposes only and need not be printed on the tread label. General and the Rubber Manufacturers Association called NHTSA's attention to certain typographical errors in the proposed Figure 2 text, which have been corrected in the amendment as adopted.

Several manufacturers suggested that the original label format be permitted as an option, or that, as a minimum, waste be avoided by allowing labels printed with the original format to be used up regardless of the adoption of a new label format. NHTSA considers the new two-part label format to be superior to the original format in terms of clarity and readability. Therefore, the agency has concluded that universal conversion to the new format is desirable. However, since manufacturers have expended significant resources in efforts to comply with the original labeling requirement, NHTSA will permit the use of labels employing the original format, at the manufacturers option, until October 1, 1980. This period of flexibility should permit any labels already printed to be used up and allow a smooth transition to the new format.

Since this amendment will increase manufacturers' flexibility in complying with the UTQG labeling requirements, and since the transition to the new labeling format will be phased in so as to avoid economic waste, the agency has found that this notice does not have significant impact for purposes of internal review. In view of the fact that some manufacturers may still be in the process of obtaining labels for their bias-belted tire lines, this amendment will become effective December 1, 1979.

In consideration of the foregoing, 49 CFR 575.104, Uniform Tire Quality Grading Standards, is amended as follows:

1. Section 575.104(d)(1)(i)(B) is amended to read:

§ 575.104 Uniform tire quality grading standards.

(d) Requirements. (1) Information. (i)

(B)(1) Each tire manufactured before October 1, 1980, other than a tire sold as original equipment on a new vehicle, shall have affixed to its tread surface in a manner such that it is not easily removable a label containing its grades and other information in the form illustrated in Figure 2, Part II, bearing the heading "DOT QUALITY GRADES." The treadwear grade attributed to the

tire shall be either imprinted or indelibly stamped on the label adjacent to the description of the treadwear grade. The label shall also depict all possible grades for traction and temperature resistance. The traction and temperature resistance performance grades attributed to the tire shall be indelibly circled. However, each tire labeled in conformity with the requirements of paragraph (d)(1)(i)(B)(2) of this section need not comply with the provisions of this paragraph.

(2) Each tire manufactured on or after October 1, 1980, other than a tire sold as original equipment on a new vehicle, shall have affixed to its tread surface so as not to be easily removable a label or labels containing its grades and other information in the form illustrated in Figure 2, Parts I and II. The treadwear grade attributed to the tire shall be either imprinted or indelibly stamped on the label containing the material in Part I of Figure 2, directly to the right of or below the word "TREADWEAR". The traction and temperature resistance performance grades attributed to the tire shall be indelibly circled in an array of the potential grade letters (ABC) directly to the right of or below the words "TRACTION" and "TEMPERATURE" in Part I of Figure 2. The words "TREADWEAR," "TRACTION," and "TEMPERATURE," in that order, may be laid out vertically or horizontally. The text of Part II of Figure 2 may be printed in capital letters. The text of Part I and the text of Part II of Figure 2 need not appear on the same label, but the edges of the two texts must be positioned on the tire tread so as to be separated by a distance of no more than one inch. If the text of Part I and the text of Part II are placed on separate labels, the notation "See EXPLANATION OF DOT QUALITY GRADES" shall be added to the bottom of the Part I text, and the words "EXPLANATION OF DOT QUALITY GRADES" shall appear at the top of the Part II text. The text of Figure 2 shall be oriented on the tire tread surface with lines of type running perpendicular to the tread circumference. If a label bearing a tire size designation is attached to the tire tread surface and the tire size designation is oriented with lines of type running perpendicular to the tread circumference, the text of Figure 2 shall read in the same direction as the tire size designation.

2. Section 575.104, Figure 2 is amended to read:

Figure 2—[Part I]—DOT Quality Grades

TREADWEAR  
TRACTION ABC  
TEMPERATURE ABC

[Part II] All Passenger Car Tires Must Conform to Federal Safety Requirements in Addition to These Grades

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1½) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

Traction

The traction grades, from highest to lowest, are A, B, and C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance. Warning: The traction grade assigned to this tire is based on braking (straight-ahead) traction tests and does not include cornering (turning) traction.

Temperature

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law. Warning: The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

The principal authors of this proposal are Dr. F. Cecil Brenner of the Office of Automotive Ratings and Richard J. Hipolit of the Office of Chief Counsel.

(Sec. 103, 112, 119, 201, 203; Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1401, 1407, 1421, 1423); delegation of authority at 49 CFR 1.50).

Issued on November 20, 1979.

Joan Claybrook,  
Administrator.

[FR Doc. 79-36522 Filed 11-29-79; 8:45 am]  
BILLING CODE 4910-59-M

## DEPARTMENT OF AGRICULTURE

## Agricultural Marketing Service

## 7 CFR Part 907

[Navel Orange Regulation 468; Navel Orange Regulation 467, Amdt. 1]

**Navel Oranges Grown in Arizona and Designated Part of California; Limitation of Handling**

**AGENCY:** Agricultural Marketing Service, USDA.

**ACTION:** Final rule.

**SUMMARY:** This action establishes the quantity of fresh California-Arizona navel oranges that may be shipped to market during the period November 30-December 6, 1979, and increases the quantity of such oranges that may be so shipped during the period November 23-29, 1979. Such action is needed to provide for orderly marketing of fresh navel oranges for the periods specified due to the marketing situation confronting the orange industry.

**DATES:** This regulation becomes effective November 30, 1979, and the amendment is effective for the period November 23-29, 1979.

**FOR FURTHER INFORMATION CONTACT:** Malvin E. McGaha, (202) 447-5975.

**SUPPLEMENTARY INFORMATION:** *Findings.* This regulation and amendment are issued under the marketing agreement, as amended, and Order No. 907, as amended (7 CFR Part 907), regulating the handling of navel oranges grown in Arizona and designated part of California. The agreement and order are effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601-674). The action is based upon the recommendations and information submitted by the Navel Orange Administrative Committee and upon other available information. It is hereby found that this action will tend to effectuate the declared policy of the act.

The committee met on November 27, 1979 to consider supply and market conditions and other factors affecting the need for regulation, and recommended quantities of navel oranges deemed advisable to be handled during the specified weeks. The committee reports the demand for navel oranges was fair last week.

It is further found that it is impracticable and contrary to the public interest to give preliminary notice,

engage in public rulemaking, and postpone the effective date until 30 days after publication in the Federal Register (5 U.S.C. 553), because of insufficient time between the date when information became available upon which this regulation and amendment are based and the effective date necessary to effectuate the declared policy of the act. Interested persons were given an opportunity to submit information and views on the regulation at an open meeting, and the amendment relieves restrictions on the handling of navel oranges. It is necessary to effectuate the declared purposes of the act to make these regulatory provisions effective as specified, and handlers have been apprised of such provisions and the effective time.

Further, in accordance with procedures in Executive Order 12044, the emergency nature of this regulation warrants publication without opportunity for further public comment. The regulation has not been classified significant under USDA criteria for implementing the Executive Order. An Impact Analysis is available from Malvin E. McGaha, Fruit Branch, Fruit and Vegetable Division, AMDS, USDA, Washington, D.C. 20250, phone 202-447-5975.

**§ 907.768 Navel Orange Regulation 468.**

1. *Order.* (a) The quantities of navel oranges grown in Arizona and California which may be handled during the period November 30, 1979, through December 6, 1979, are established as follows:

- (1) District 1: 1,080,000 cartons;
- (2) District 2: Unlimited movement;
- (3) District 3: 96,000 cartons;
- (4) District 4: 24,000 cartons.

(b) As used in this section, "handle", "District 1", "District 2", "District 3", "District 4" and "carton" mean the same as defined in the marketing order.

**§ 907.767 [Amended]**

2. Paragraph (a)(1) and (a)(3) in § 907.767 Navel Orange Regulation 467 (44 FR 66780), is hereby amended to read:

- (1) District 1: 900,000 cartons.
- (3) District 3: 100,000 cartons.

(Secs. 1-19, 48 Stat. 31, as amended; 7 U.S.C. 601-674)

Dated: November 28, 1979.

**D. S. Kuryloski,**

*Deputy Director, Fruit and Vegetable Division, Agricultural Marketing Service.*

[FR Doc. 79-36995 Filed 11-28-79; 11:22 am]

**BILLING CODE 3410-02-M**

# Proposed Rules

Federal Register

Vol. 44, No. 231

Thursday, November 29, 1979

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 71

[Airspace Alteration No. 79-ANW-14]

#### Proposed Alteration of Transition Area

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rule making.

**SUMMARY:** This notice proposes to alter the Pasco, Washington, transition area. This proposal is necessary to provide controlled airspace for aircraft executing the new Localizer Runway 19 standard instrument approach procedure developed for Richland Municipal Airport, Richland, Washington. The proposed rule, if adopted, will expand controlled airspace in the Pasco area.

**DATES:** Comments must be received on or before December 31, 1979.

**ADDRESS:** Send comments on the proposal to: Chief, Operations, Procedures and Airspace Branch, Federal Aviation Administration, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108. The official docket may be examined at the following location: Office of the Regional Counsel, Federal Aviation Administration, Northwest Region, FAA Building, Boeing Field, Seattle, Washington, 98108.

**FOR FURTHER INFORMATION CONTACT:** Robert L. Brown, Airspace Specialist, Operations, Procedures and Airspace Branch, (ANW-534), Air Traffic Division, Federal Aviation Administration, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108; telephone (206) 767-2610.

#### SUPPLEMENTARY INFORMATION:

##### Comment Invited

Interested persons may participate in the proposed rule making by submitting such written data, views, or arguments

as they may desire. Communications should identify the airspace docket number and be submitted to the Chief, Operations, Procedures and Airspace Branch, Federal Aviation Administration, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108. All communications received on or before December 31, 1979, will be considered before action is taken on the proposed amendment. The proposal contained in this notice may be changed in light of the comments received. All comments received will be available, before and after the closing dates for comments, in the official docket for examination by interested persons.

#### Availability of NPRM

Any person may obtain a copy of this Notice of Proposed Rule Making by submitting a request to the Federal Aviation Administration, Chief, Operations, Procedures and Airspace Branch, ANW-530, Northwest Region, FAA Building, Boeing Field, Seattle, Washington 98108 or by calling (206) 767-2610. Communications must identify the notice number of this NPRM.

Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedure.

#### The Proposal

The Federal Aviation Administration is considering an amendment to Subpart G or Part 71 of the Federal Aviation Regulations (14 CFR Part 71) to alter the 700 foot Pasco, Washington, transition area. The proposal is necessary to provide controlled airspace for aircraft executing the new localizer standard instrument approach procedure developed for the Richland Municipal Airport, Richland, Washington. The approach procedure will provide lower minimum approach altitudes than currently available, however, additional airspace is required. Accordingly, the FAA proposes to amend Subpart G of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as follows:

Section 71.181 *Pasco, Wash.* is amended as follows:

Add after "VOR to 26.5 miles west of the VOR," on Line 5 with the following:

"\* \* \* within 9.5 miles west and 4.5 miles east from the Richland, Washington, Airport

Localizer north course located at Latitude 46°17'57" N, Longitude 119°18'29" W, to 24 miles north."

#### Drafting Information

The principal authors of this document are Robert L. Brown, Air Traffic Division, and Hays V. Hettinger, Regional Counsel, Northwest Region, Federal Aviation Administration.

This amendment is proposed under authority of Section 307(a) of the Federal Aviation Act of 1958, as amended, (49 U.S.C. 1348(a)), and of Section 6(c) of the Department of Transportation Act, (49 U.S.C. 1655(c)).

**Note.**—The FAA has determined that this document involves a proposed regulation which is not considered to be significant under the procedures and criteria prescribed by Executive Order 12044 and as implemented by Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979).

Issued in Seattle, Wash., on November 14, 1979.

C. B. Walk, Jr.,

Director.

[FR Doc. 79-36412 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

#### 14 CFR Part 71

[Airspace Docket No. 79-EA-51]

#### Extension of Federal Airway and Designation of Reporting Point

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** This notice proposes to extend V-377 airway from Montebello, Va., to its present beginning at Kessel, W. Va., and to designate Kessel as a reporting point. The additional airway segment would reduce the airway distance between the two places and the reporting point would be used for the control of air traffic at the lower altitudes.

**DATES:** Comments must be received on or before December 26, 1979.

**ADDRESSES:** Send comments on the proposal in triplicate to: Director, FAA Eastern Region, Attention: Chief, Air Traffic Division, Docket No. 79-EA-51, Federal Aviation Administration, Federal Building, John F. Kennedy International Airport, Jamaica, N. Y. 11430. The official docket may be examined at the following location: FAA

Office of the Chief Counsel, Rules Docket (AGC-24), Room 916, 800 Independence Avenue, SW., Washington, D. C. 20591. An informal docket may be examined at the office of the Regional Air Traffic Division.

**FOR FURTHER INFORMATION CONTACT:** Mr. Everett L. McKisson, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone (202) 426-3715.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

Interested persons may participate in the proposed rulemaking by submitting such written data, views or arguments as they may desire. Communications should identify the airspace docket number and be submitted in triplicate to the Administrator, Eastern Region, Attention: Chief, Air Traffic Division, Federal Aviation Administration, Federal Building, John F. Kennedy International Airport, Jamaica, N. Y. 11430. All communications received on or before December 26, 1979, will be considered before action is taken on the proposed amendment. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

**Availability of NPRM**

Any person may obtain a copy of this notice of proposed rulemaking (NPRM) by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Information Center, APA-430, 800 Independence Avenue, SW., Washington, D.C. 20591, or by calling (202) 426-8058. Communications must identify the docket number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which described the application procedures.

**The Proposal**

The FAA is considering an amendment to Part 71 of the Federal Aviation Regulations (14 CFR Part 71) that would extend V-377 airway from Kessel to Montebello and designate Kessel a compulsory reporting point. The amount of air traffic north of Lynchburg, Va., has increased sufficiently to justify the designation of the direct route between Montebello and Kessel as an airway.

**The Proposed Amendment**

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 307, 637) as follows:

In § 71.123. Under V-377 "From Kessel, W. Va., via" is deleted and "From Montebello, Va., via Kessel, W. Va.;" is substituted therefor.

In § 71.203. "Kessel, W. Va." is added. (Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1349(a) and 1354(a)); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.65.)

**Note.**—The FAA has determined that this document involves a proposed regulation which is not significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation and a comment period of less than 45 days is appropriate.

Issued in Washington, D.C., on November 19, 1979.

**William E. Broadwater,**  
Chief, Airspace and Air Traffic Rules Division.

[FR Doc. 79-36413 Filed 11-29-79; 8:45 am]  
BILLING CODE 4910-13-M

**14 CFR Part 71**

[Airspace Docket No. 79-AL-10]

**Control Zone and Transition Area, Designation**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** This notice proposes to designate a control zone and a transition area to provide protection for Instrument Flight Rule (IFR) flights to and from Lonely DEW Station, an airport on the north slope of Alaska. The increased use of this airport creates the need for additional protection of aircraft operating under IFR.

**DATES:** Comments must be received on or before December 26, 1979.

**ADDRESS:** Send comments on the proposal in triplicate to: Director, FAA Alaskan Region, Attention: Chief, Air Traffic Division, Docket No. 79-AL-10, Federal Aviation Administration, Anchorage Federal Office Building, 701 C Street, P.O. Box 14, Anchorage, Alaska 99513.

The official docket may be examined at the following location: FAA Office of the Chief Counsel, Rules Docket (AGC-24), Room 916, 800 Independence Avenue, SW., Washington, D.C. 20591.

An informal docket may be examined at the office of the Regional Air Traffic Division.

**FOR FURTHER INFORMATION CONTACT:** Mr. Everett L. McKisson, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone: (202) 426-3715.

**Comments Invited**

Interested persons may participate in the proposed rulemaking by submitting such written data, views or arguments as they may desire. Communications should identify the airspace docket number and be submitted in triplicate to the Director, Alaskan Region, Attention: Chief, Air Traffic Division, Federal Aviation Administration, Anchorage Federal Office Building, 701 C Street, P.O. Box 14, Anchorage, Alaska 99513. All communications received on or before December 26, 1979, will be considered before action is taken on the proposed amendment. The proposal contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons.

**Availability of NPRM**

Any person may obtain a copy of this notice of proposed rulemaking (NPRM) by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Information Center, APA-430, 800 Independence Avenue, SW., Washington, D.C. 20591, or by calling (202) 426-8058. Communications must identify the docket number of this NPRM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2 which describes the application procedures.

**The Proposal**

The FAA is considering an amendment to Part 71 of the Federal Aviation Regulations (14 CFR Part 71) that would designate a control zone within a 5-mile radius of Lonely DEW Station Airport and within 3.5 miles each side of the 265° magnetic bearing from the Lonely nondirectional radio beacon (NDB), extending to 10 miles from the NDB. The FAA is also considering the designation of a

transition area that would extend upward from 700 feet above the surface within 4.5 miles north and 9.5 south of the 265° magnetic bearing from the Lonely NDB extending to 18.5 miles from the NDB. The amount of air traffic at Lonely DEW Station Airport has increased sufficiently to justify the designation of the proposed controlled airspace.

#### ICAO Considerations

As part of this proposal relates to the navigable airspace outside the United States, this notice is submitted in consonance with the International Civil Aviation Organization (ICAO) International Standards and Recommended Practices.

Applicability of International Standards and Recommended Practices by the Air Traffic Service, FAA, in areas outside domestic airspace of the United States is governed by Article 12 of and Annex 11 to the Convention on International Civil Aviation, which pertains to the establishment of air navigational facilities and services necessary to promoting the safe, orderly, and expeditious flow of civil air traffic. Their purpose is to insure that civil flying on international air routes is carried out under uniform conditions designed to improve the safety and efficiency of air operations.

The International Standards and Recommended Practices to Annex 11 apply in those parts of the airspace under the jurisdiction of a contracting state, derived from ICAO, wherein air traffic services are provided and also whenever a contracting state accepts the responsibility of providing air traffic services over high seas or in airspace of undetermined sovereignty. A contracting state accepting such responsibility may apply the International Standards and Recommended Practices to civil aircraft in a manner consistent with that adopted for airspace under its domestic jurisdiction.

In accordance with Article 3 of the Convention on International Civil Aviation, Chicago, 1944, state aircraft are exempt from the provisions of Annex 11 and its Standards and Recommended Practices. As a contracting state, the United States agreed by Article 3(d) that its state aircraft will be operated in international airspace with due regard for the safety of civil aircraft.

Since this action involves, in part, the designation of navigable airspace outside the United States, the Administrator has consulted with the Secretary of State and the Secretary of Defense in accordance with the provisions of Executive Order 10854.

#### The Proposed Amendment

Accordingly, pursuant to the authority delegated to me, the Federal Aviation Administration proposes to amend §§ 71.171 and 71.181 of Part 71 of the Federal Aviation Regulations (14 CFR Part 71) as republished (44 FR 353, 442) as follows:

Under § 71.171 "Lonely DEW Station, Alaska Within a 5-mile radius of Lonely DEW Station Airport (Lat. 70°54'20" N., Lat. 153°14'20" W.) and within 3.5 miles each side of the 293° bearing from the Lonely NDB, extending from the NDB to 10 miles northwest of the NDB." is added.

Under § 71.181 "Lonely DEW Station, Alaska That airspace extending upward from 700 feet above the surface within 4.5 miles north and 9.5 miles south of the 293° bearing from the Lonely NDB, extending from the NDB to 18.5 miles northwest of the NDB." is added.

(Secs. 307(a), 313(a), and 1110, Federal Aviation Act of 1958 (49 U.S.C. 1348(a), 1354(a), and 1510); Executive Order 10854 (24 FR 9565); sec. 8(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.65).

**Note.**—The FAA has determined that this document involves a proposed regulation which is not significant under Executive order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Since this regulatory action involves an established body of technical requirements for which frequent and routine amendments are necessary to keep them operationally current and promote safe flight operations, the anticipated impact is so minimal that this action does not warrant preparation of a regulatory evaluation and a comment period of less than 45 days is appropriate.

Issued in Washington, D.C., on November 19, 1979.

**William E. Broadwater,**  
Chief, Airspace and Air Traffic Rules  
Division.

[FR Doc. 79-36414 Filed 11-28-79; 8:45 am]  
BILLING CODE 4910-13-M

#### 14 CFR Part 71 and 73

[Airspace Docket No. 79-WE-19]

#### Temporary Restricted Areas— Correction

**AGENCY:** Federal Aviation Administration (FAA), DOT  
**ACTION:** Correction to Notice of Proposed Rulemaking.

**SUMMARY:** This notice corrects a notice of proposed rulemaking action for proposed temporary joint use restricted area called "Gallant Eagle 80" located in the Edwards Air Force Base, Calif., area and the Nellis Air Force Base, Nev., area

published on November 13, 1979, Vol. 44 Page 65403. Four corridor type restricted areas, between the Edwards Air Force Base area, and the Nellis Air Force Base, were inadvertently omitted. This action corrects that omission.

**DATES:** Comments must be received on or before December 31, 1979.

**ADDRESS:** Send comments on the proposal in triplicate to: Director, FAA Western Region, Attention: Chief, Air Traffic Division, Docket No. 79-WE-19, Federal Aviation Administration, 15000 Aviation Boulevard, P.O. Box 92007, Worldway Postal Center, Los Angeles, Calif. 90009.

The official docket may be examined at the following location: FAA Office of the Chief Counsel, Rules Docket (ACC-24), Room 916, 800 Independence Avenue, SW., Washington, D.C. 20591.

An informal docket may be examined at the office of the Regional Air Traffic Division.

**FOR FURTHER INFORMATION CONTACT:** Mr. Lewis W. Still, Airspace Regulations Branch (AAT-230), Airspace and Air Traffic Rules Division, Air Traffic Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, D.C. 20591; telephone: (202) 426-8525.

**SUPPLEMENTARY INFORMATION:** Federal Register Document 79-34945 was published on November 13, 1979, (44 FR 65403) and proposed to designate temporary joint use restricted areas identified as R-2502N, R-2502E, R-2524, and R-2515 in the Edwards Air Force Base, Calif., area and R-4806, R-4807, R-4808N, and R-4809 in the Nellis Air Force Base, Nev., area to contain the military joint readiness exercise called Gallant Eagle 80 proposed designation in March 1980. Inadvertently, four corridor type restricted areas, joining the two large exercise areas, were omitted and action is taken herein to correct that omission thereby prohibiting unauthorized flight of nonparticipating aircraft with the exercise area.

#### Correction to the Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, Federal Register Document 79-34945 as published on November 13, 1979, on page 65403 is amended as follows:

Under Section 71.151 the following temporary restricted areas are added for the duration of their time from 0001 to 0001 March 5 through March 14, 1980.

R-2537B Gallant Eagle 80, Calif.

R-2537C Gallant Eagle 80, Calif.

R-2537D Gallant Eagle 80, Calif.

Under Section 73.25 (44 FR 675) the following temporary restricted areas are added:

- R-2537A Gallant Eagle 80  
Boundaries. Beginning at lat. 37°05'00"N., long. 117°15'30"W.; to 37°26'00"N., long. 117°04'30"W.; to 38°51'00"N., long. 116°33'30"W.; to 36°41'20"N., long. 116°26'30"W.; to 36°26'30"N., long. 116°03'30"W.; to 36°18'00"N., long. 115°40'00"W.; to 35°54'00"N., long. 116°07'30"W.; to 36°06'00"N., long. 116°18'00"W.; to 36°30'00"N., long. 116°47'00"W.; to point of beginning.  
Designated altitudes. 3,000 feet AGL up to and including 11,000 feet MSL.  
Time of designation. Continuous 0001 March 5 to 0001 PST March 14, 1980.  
Controlling agency. Federal Aviation Administration, Los Angeles ARTC Center.  
Using agency. U.S. Air Force Tactical Air Command/USAF Readiness Command (TAC/USAFRED), Langley Air Force Base, Va. 23665
- R-2537B Gallant Eagle 80  
Boundaries. Beginning at lat. 37°05'00"N., long. 117°15'30"W.; to 37°26'00"N., long. 117°04'30"W.; to 38°51'00"N., long. 116°33'30"W.; to 36°41'20"N., long. 116°26'30"W.; to 36°26'30"N., long. 116°03'30"W.; to 36°18'00"N., long. 115°40'00"W.; to 35°54'00"N., long. 116°07'30"W.; to 36°06'00"N., long. 116°18'00"W.; to 36°30'00"N., long. 116°47'00"W.; to 36°30'00"N., long. 116°55'30"W.; to point of beginning.  
Designated altitudes. 15,000 feet AGL up to and including FL180.  
Time of designation. Continuous 0001 March 5 to 0001 PST March 14, 1980.  
Controlling agency. Federal Aviation Administration, Los Angeles ARTC Center  
Using agency. U.S. Air Force Tactical Air Command/USAF Readiness Command (TAC/USAFRED), Langley Air Force Base, Va. 23665
- R-2537C Gallant Eagle 80  
Boundaries. Beginning at lat. 37°05'00"N., long. 117°15'30"W.; to lat. 37°26'30"N., long. 117°04'30"W.; to lat. 36°51'00"N., long. 116°33'30"W.; to lat. 36°41'00"N., long. 116°26'30"W.; to lat. 36°26'00"N., long. 116°03'00"W.; to lat. 36°21'15"N., long. 115°52'00"W.; to lat. 36°02'45"N., long. 116°15'00"W.; to lat. 36°06'00"N., long. 116°18'00"W.; to lat. 36°30'00"N., long. 116°47'00"W.; to lat. 36°30'00"N., long. 116°55'00"W.; to point of beginning.  
Designated altitudes. Fl 190 up to and including FL 210.  
Time of designation. Continuous 0001 March 5 to 0001 PST March 14, 1980.  
Controlling agency. Federal Aviation Administration, Los Angeles ARTC Center  
Using Agency. U.S. Air Force Tactical Air Command/USAF Readiness Command (TAC/USAFRED), Langley Air Force Base, Va. 23665
- R-2537D Gallant Eagle 80

Boundaries. Beginning at lat. 37°05'00"N., long. 117°15'30"W.; to lat. 37°26'00"N., long. 117°04'30"W.; to lat. 38°51'00"N., long. 116°33'30"W.; to lat. 36°41'20"N., long. 116°26'30"W.; to lat. 36°26'30"N., long. 116°03'30"W.; to lat. 36°18'00"N., long. 115°40'00"W.; to lat. 35°54'00"N., long. 116°07'30"W.; to lat. 36°06'00"N., long. 116°18'00"W.; to lat. 36°30'00"N., long. 116°47'00"W.; to lat. 36°30'00"N., long. 116°55'00"W.; to point of beginning.

Designated altitudes. FL 270 up to and including FL 280.

Time of designation. Continuous 0001 March 5 to 0001 PST March 14, 1980.

Controlling agency. Federal Aviation Administration, Los Angeles ARTC Center.

Using agency. U.S. Air Force Tactical Air Command/USAF Readiness Command (TAC/USAFRED), Langley Air Force Base, Va. 23665

(Secs. 307(a) and 313(a), Federal Aviation Act of 1958 (49 U.S.C. 1348(a) and 1354(a)); Sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)); and 14 CFR 11.65.)

Note.—The FAA has determined that this document involves a proposed regulation which is not significant under the procedures and criteria prescribed by Executive Order 12044 and implemented by interim Department of Transportation guidelines (43 FR 9582; March 8, 1978).

Issued in Washington, D.C., on November 23, 1979.

B. Keith Potts,

Acting Chief, Airspace and Air Traffic Rules Division.

[FR Doc. 79-36776 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

## EQUAL EMPLOYMENT OPPORTUNITY COMMISSION

### 29 CFR Part 1615

#### Implementation of Executive Order No. 11914; Nondiscrimination on the Basis of Handicap in Federally Assisted Programs

AGENCY: Equal Employment Opportunity Commission.

ACTION: Proposed Regulations.

**SUMMARY:** These proposed regulations set forth procedures and policies to assure nondiscrimination on the basis of handicap. The regulations define and forbid acts of discrimination against qualified handicapped individuals in employment and in the operation of programs and activities receiving assistance from the Equal Employment Opportunity Commission. These proposed regulations implement Section 504 of the Rehabilitation Act of 1973, as amended, in compliance with Executive Order 11914, April 29, 1976.

**DATES:** Written comments must be received on or before January 28, 1980.

Final regulations will be issued after coordination with the Department of Health, Education, and Welfare.

**ADDRESS:** Comments should be addressed to Marie Wilson, Executive Secretariat, Equal Employment Opportunity Commission, 2401 E Street, N.W., Washington, D.C. 20506.

**FOR FURTHER INFORMATION CONTACT:** Constance L. Dupre, Associate General Counsel, Legal Counsel Division, Office of the General Counsel, Room 2254, Equal Employment Opportunity Commission, 2401 E Street, N.W., Washington, D.C. 20506. (202) 634-6595.

**SUPPLEMENTARY INFORMATION:** Section 504 of the Rehabilitation Act of 1973 provides, *inter alia*, that "no otherwise qualified handicapped individual in the United States . . . shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. . . ."

On January 13, 1978, HEW published a final rule at 43 FR 2132 (45 CFR Part 85) which established the procedures applicable to all federal agencies with regard to the implementation of Section 504 of the Rehabilitation Act as it relates to recipients of Federal financial assistance.

The Equal Employment Opportunity Commission's proposed regulations are patterned after the regulations issued by HEW. Changes were made to meet the specific organizational and programmatic requirements of the Equal Employment Opportunity Commission. The principal Commission programs which involve Federal financial assistance are listed in Appendix A.

Signed this 26th day of November, 1979.

For the Commission.

Eleanor Holmes Norton,

Chair.

Accordingly the Commission proposes to add Part 1615 to title 29 of the Code of Federal Regulations to read as follows:

#### PART 1615—NONDISCRIMINATION ON THE BASIS OF HANDICAP IN FEDERALLY ASSISTED PROGRAMS

##### Subpart A—Scope

- Sec.  
1615.1 Purpose.  
1615.2 Applicability.  
1615.3 Definitions.

##### Subpart B—Standards for Determining Who are Handicapped Persons

- 1615.4 Handicapped Person.  
1615.5 Qualified Handicapped Person.

**Subpart C—Guidelines for Determining Discriminatory Practices**

## Sec.

- 1615.6 General prohibitions against discrimination.
- 1615.7 General prohibitions against employment discrimination.
- 1615.8 Reasonable accommodation.
- 1615.9 Employment criteria.
- 1615.10 Preemployment inquiries.
- Program Accessibility**
- 1615.11 General requirements concerning program accessibility.
- 1615.12 Existing facilities/construction.

**Subpart D—Enforcement**

- 1615.13 Assurances.
- 1615.14 Compliance: Reports and access.
- 1615.15 Recipient duties.
- 1615.16 Investigations.
- 1615.17 Procedure for obtaining compliance.
- 1615.18 Hearings.
- 1615.19 Decisions and notices.
- 1615.20 Judicial review.
- 1615.21 Interagency cooperation.
- 1615.22 Coordination with sections 502 and 503.
- 1615.23 Effect on other regulations, forms and instructions.
- 1615.24 Severability.

**Appendix A—Current Commission Programs Covered by these Regulations**

Authority: Section 504, Rehabilitation Act of 1973, Pub. L. 93-112, (29 U.S.C. 794) and Executive Order 11914, 41 FR 17871.

**Subpart A—Scope****§ 1615.1 Purpose.**

The purpose of this part is to implement section 504 of the Rehabilitation Act of 1973, as amended, (29 U.S.C. 794), insofar as it relates to recipients of Federal financial assistance. The Act provides, *inter alia*: "No otherwise qualified handicapped individual in the United States \* \* \* shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance \* \* \*."

**§ 1615.2 Applicability.**

This part applies to any program for which Federal financial assistance is authorized under a law administered by the Equal Employment Opportunity Commission, including all Commission grant programs, and other similar activities (including, but not limited to, those listed in Appendix A to this Part). It applies to monies paid, property transferred, or other Federal financial assistance extended to any such programs or activity after the effective date of this part, including assistance extended pursuant to an application approved prior to the effective date. This part does not apply to: (a) any procurement contract; or (b) any Federal

financial assistance by way of insurance or guaranty contract.

**§ 1615.3 Definitions.**

As used in this part: (a) "Section 504" means section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112, as amended by the Rehabilitation Act Amendments of 1974, Pub. L. 93-516, 29 U.S.C. 794.

(b) The term "Commission" means the Equal Employment Opportunity Commission or any duly authorized representative.

(c) The term "Chairman" means the Chairperson of the Equal Employment Opportunity Commission or any person to whom he or she has delegated his or her authority in the matter concerned.

(d) The term "responsible Commission official" with respect to any program receiving Federal financial assistance means the Chairman of the Commission or other Commission official designated in writing by the Chairman.

(e) "Federal financial assistance" means any grant, loan, contract (other than a procurement contract or a contract of insurance or guaranty) or any other arrangement by which the agency provides or otherwise makes available assistance in the form of: (1) Funds; (2) Services of Federal personnel; or (3) Real and personal property or any interest in or use of such property.

(f) The term "program" includes any program, project, or activity involving the provision of services, financial aid, or other benefits to individuals provided under a program receiving Federal financial assistance.

(g) "Facility" includes all or any portion of buildings, structures, equipment, roads, walks, parking lots, or other real or personal property or interest in such property.

(h) "Recipient" means any State or its political subdivision, any public or private agency, institution, organization, or other entity, or any individual, in any state, to which Federal financial assistance is extended directly or through another recipient, for any program including any successor, assignee, or transferee of a recipient, but excluding the ultimate beneficiary of the assistance.

**Subpart B—Standards for Determining Who are Handicapped Persons****§ 1615.4 Handicapped Person.**

(a) "Handicapped person" means any person who has a physical or mental impairment which substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment. Insofar as this Part relates to employment of handicapped persons,

the term "handicapped person" does not include any individual who is an alcoholic or drug abuser whose current use of alcohol or drugs prevents such individual from performing the duties of the job in question or whose employment, by reason of such current alcohol or drug abuse, would constitute a direct threat to property or the safety of others.

(b) As used in paragraph (a) of this section, the phrase: (1) "Physical or mental impairment" means (i) any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: neurological; musculoskeletal; special sense organs; respiratory, including speech organs; cardiovascular; reproductive; digestive; genitourinary; hemic and lymphatic; skin; and endocrine; or (ii) any mental or psychological disorder, such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities. The term "physical or mental impairment" includes, but is not limited to such diseases and conditions as orthopedic, visual, speech and hearing impairments, cerebral palsy, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, mental retardation and emotional illness. The term "physical or mental impairment" also includes drug addiction and alcoholism except to the extent that individuals suffering from such ailments are excluded from the definition of a handicapped person in § 1615.4(a).

(2) "Major life activities" means functions such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working.

(3) "Has a record of such an impairment" means has a history of, or has been misclassified as having, mental or physical impairment which substantially limits one or more major life activities.

(4) "Is regarded as having an impairment" means (i) has a physical or mental impairment that does not substantially limit major life activities but is treated by a recipient as constituting such a limitation; (ii) has a physical or mental impairment that substantially limits major life activities only as a result of the attitudes of others toward such impairment; or (iii) has none of the impairments defined in paragraph (b)(1) of this section but is treated by a recipient as having such an impairment.

**§ 1615.5 Qualified handicapped person.**

"Qualified handicapped person" means (a) with respect to employment, a

handicapped person, who, with reasonable accommodation, can perform the essential functions of the job in question and (b) with respect to services, a handicapped person who meets the essential eligibility requirements for the recipient of such services.

### Subpart C—Guidelines for Determining Discriminatory Practices

#### § 1615.6 General prohibitions against discrimination.

(a) *General.* No qualified handicapped person, shall by reason of his handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives or benefits from Federal financial assistance.

(b) *Specific discriminatory action prohibited.* (1) A recipient, in providing any benefit, or service, may not, directly or through contractual, or other arrangements, on the basis of handicap:

(i) Deny a qualified handicapped person the opportunity to participate in or benefit from the benefit, or service;

(ii) Deny a qualified handicapped person the opportunity to participate in or benefit from the benefit or service in a manner that is equal to that afforded others.

Thus, no State or local anti-discrimination agency receiving funds from the Commission shall refuse to accept or process or treat differently the complaints of race, color, sex, religion or national origin discrimination, filed by handicapped persons, over which the recipient agency has jurisdiction. A recipient agency also may not discriminate against individuals filing complaints of handicap discrimination which are within the jurisdiction of the agency, nor process such complaints in a discriminatory manner.

#### § 1615.7 General prohibitions against employment discrimination.

(a) No qualified handicapped person shall, on the basis of handicap, be subjected to discrimination in employment under any program or activity that receives of benefits from Federal financial assistance.

(b) A recipient shall make all decisions concerning employment under any program or activity to which this part applies in a manner which ensures that discrimination on the basis of handicap does not occur and may not limit, segregate, or classify applicants or employees in any way that adversely affects their terms, conditions, or privileges of employment because of handicap.

(c) A recipient may not participate in a contractual or other relationship that has the effect of subjecting qualified handicapped applicants or employees to discrimination prohibited by this subpart. The relationships referred to in this paragraph include relationships with employment and referral agencies, with labor unions, with organizations providing or administering fringe benefits to employees of the recipient, and with organizations providing training and apprenticeship programs.

#### § 1615.8 Reasonable accommodation.

A recipient shall make reasonable accommodation to the known physical or mental limitations of an otherwise qualified handicapped applicant or employee unless the recipient can demonstrate that the accommodation would impose an undue hardship on the operation of its program.

#### § 1615.9 Employment criteria.

A recipient may not use employment tests or criteria that discriminate against qualified handicapped persons and shall ensure that employment tests are adapted for use by persons who have handicaps that impair sensory, manual, or speaking skills.

#### § 1615.10 Preemployment inquiries.

(a) Except as provided in paragraphs (b) and (c) of this section, a recipient may not conduct a preemployment medical examination or may not make preemployment inquiry of an applicant as to whether the applicant is a handicapped person or as to the nature or severity of a handicap. A recipient may, however, make preemployment inquiry into an applicant's ability to perform job-related functions.

(b) When a recipient is taking remedial action to correct the effects of past discrimination on the basis of handicap, when a recipient is taking voluntary action to overcome the effects of conditions that resulted in limited participation by handicapped individuals in its federally assisted program or activity, or when a recipient is taking affirmative action pursuant to section 503 of the Act, the recipient may invite applicants to employment to indicate whether and to what extent they are handicapped, *Provided, That:*

(1) The recipient states clearly on any written questionnaire used for this purpose or makes clear orally if no written questionnaire is used that the information requested is intended for use solely in connection with its remedial action obligations or its voluntary or affirmative action efforts; and

(2) The recipient states clearly that the information is being requested on a voluntary basis, that it will be kept confidential as provided in paragraph (d) of this section, that refusal to provide it will not subject the applicant or employee to any adverse treatment, and that it will be used only in accordance with this part.

(c) Nothing in this section shall prohibit a recipient from conditioning an offer of employment on the results of a medical examination conducted prior to the employee's entrance on duty, *Provided, That:* (1) All entering employees are subjected to such an examination regardless of handicap, and (2) the results of such an examination are used only in accordance with the requirements of this part.

(d) Information obtained in accordance with this section as to the medical condition or history of the applicant shall be collected and maintained on separate forms that shall be accorded confidentiality as medical records, except that:

(1) Supervisors and managers may be informed regarding restrictions on the work or duties of handicapped persons and regarding necessary accommodations;

(2) First aid and safety personnel may be informed, where appropriate, if the condition might require emergency treatment; and

(3) Government officials investigating compliance with the Act shall be provided relevant information upon request.

### Program Accessibility

#### § 1615.11 General requirement concerning program accessibility.

No qualified handicapped person shall, because a recipient's facilities are inaccessible to or unusable by handicapped persons, be denied the benefits of, or excluded from participation in, or otherwise be subjected to discrimination under any program or activity that receives or benefits from Federal financial assistance.

#### § 1615.12 Existing facilities/construction.

A recipient shall operate each program or activity so that the program, or activity, when viewed in its entirety, is readily accessible to and usable by handicapped persons.

### Subpart D—Enforcement

#### § 1615.13 Assurances.

(a) Every application for Federal financial assistance for a program to which this Part applies, as a condition to its approval and the extension of any

Federal financial assistance pursuant to the application, shall contain or be accompanied by a written assurance that (1) The program will be conducted, or the facility operated, in compliance with all requirements imposed by this Part; (2) the applicant will take affirmative steps to insure equal opportunity and shall periodically evaluate its performance; (3) records will be maintained as required by Section 1615.14(b); and (4) assurance will be required by subgrantees, contractors and subcontractors, transferees, successors in interest, and other participants in the program. Any such assurance shall include provisions which express consent to judicial enforcement by the United States.

(b) Each recipient shall take appropriate initial and continuing steps to notify participants, beneficiaries, applicants and employees, including those with impaired vision or hearing, and unions or professional organizations holding collective bargaining or professional agreements with the recipient, that it does not discriminate on the basis of handicap in violation of section 504 or this Part. The notification shall state, where appropriate, that the recipient does not discriminate on the basis of handicap in admission or access to, treatment, or employment in its programs and activities. The notification shall also include an identification of the responsible employee designated under § 1615.13(c). A recipient shall make the initial notification required by this paragraph within 90 days of the effective date of this Part. Methods of initial and continuing notification may include the posting of notices and publication in newspapers.

(c) A recipient shall designate at least one person in its organization to coordinate its efforts to comply with this part.

#### § 1615.14 Compliance, Reports and Access.

(a) *Cooperation and assistance.* The Commission shall seek the cooperation of recipients and applicants in obtaining compliance with this Part and shall provide assistance and guidance to recipients and applicants to help them comply voluntarily with this Part.

(b) *Compliance Reports.* Each recipient or applicant shall keep such records and submit to the Chairman, or his or her designee, timely, complete, and accurate compliance reports at such times, in such form, and containing such information as the Chairman or his or her designee may determine to be necessary or useful to enable the Commission to ascertain whether the

recipient or applicant is complying with this Part. Recipients and applicants shall have available for Commission officials on request: (1) Data showing the extent to which handicapped persons are or will be beneficiaries of the Federal financial assistance, (2) written materials concerning the manner in which services are or will be provided, (3) data necessary for determining whether any persons are or will be denied such services on the basis of prohibited discrimination, and (4) a brief written description of any recipient's or applicant's pending application to other federal agencies for assistance and of federal assistance being provided at the time of the application or requested report. The Commission may also require a written statement from any recipient or applicant describing any civil rights compliance reviews regarding the programs of the recipients or applicants conducted by any federal agency or other organization during the two-year period before the application or the requested report.

(c) *Access to Sources of Information.* Each recipient shall permit access by the Chairman or his or her designee during normal business hours to such of its facilities, books, records, accounts and other sources of information as the agency designee deems relevant to a determination of whether or not the recipient is complying with this Part.

#### § 1615.15 Recipient duties.

(a) Information to beneficiaries and participants. Each recipient shall make available to participants, beneficiaries, and other interested persons any information pertinent to the provisions of this Part and its applicability to the program receiving Federal financial assistance which is necessary or useful to inform such persons of the protections against discrimination assured them by the Act and by this Part. Recipients shall display in reasonable numbers and places posters which state that the recipients operate programs subject to the non-discrimination requirements of section 504 of the Rehabilitation Act of 1973, as amended. Recipients shall also include information on section 504 requirements, complaint procedures and the rights of beneficiaries in handbooks, manuals, pamphlets and other materials which are ordinarily distributed to the public.

(b) Information obtained in accordance with § 1615.10 as to the medical condition or history of the applicant shall be collected and maintained on separate forms that shall be accorded confidentiality as medical records, except that:

(1) Supervisors and managers may be informed regarding restrictions on the work or duties of handicapped persons and regarding necessary accommodations;

(2) First aid and safety personnel may be informed, where appropriate, if the condition might require emergency treatment; and

(3) Government officials investigating compliance with the Act shall be provided relevant information upon request.

(c) *Self-evaluation.* A recipient shall, within one year of the effective date of this Part:

(1) Evaluate with the assistance of interested persons, including handicapped persons or organizations representing handicapped persons, its current policies and practices and the effects of the policies and practices that do not or may not meet the requirements of this Part;

(2) Modify, after consultation with interested persons, including handicapped persons or organizations representing handicapped persons, any policies and practices that do not meet the requirements of this Part; and

(3) Take, after consultation with interested persons, including handicapped persons or organizations representing handicapped persons, appropriate remedial steps to eliminate the effects of any discrimination that resulted from adherence to any policies and practices which did not meet the requirements of this Part.

(d) *Complaints.* Any person or entity who believes himself, herself, or a specific class of persons, to be subjected to discrimination on the basis of handicap prohibited by this Part may himself, herself, or by a representative, file with the Chairman, or his or her designee, a written complaint. This complaint must be filed not later than *ninety days* from the date of the alleged discrimination unless the time for filing is extended by the Chairman or his or her designee in writing. The Commission will maintain a log of section 504 complaints filed with it, about its recipients, containing pertinent data, such as date of receipt, dates of investigations and other actions, current status and disposition if any concerning all section 504 complaints.

#### § 1615.16 Investigations.

(a) The Chairman or a designee will make a prompt investigation whenever a compliance review, report, complaint, or any other information indicates a possible failure to comply with this Part. This investigation will include, where appropriate, a review of the pertinent

practices and policies of the recipient, the circumstances under which the possible non-compliance with this Part occurred, and other factors relevant to a determination of whether the recipient has failed to comply with this Part.

(b) If an investigation indicates a failure to comply with this Part, the Chairman or his or her designee will so inform the recipient and complainant, if any, in writing, and the matter will be resolved by informal means, whenever possible. If an investigation does not indicate a failure to comply with this Part, the Chairman or his or her designee will so inform the recipient and complainant, if any, in writing.

(c) Intimidatory or retaliatory acts prohibited. No recipient or other persons shall intimidate, threaten, coerce, or discriminate against any individual for the purpose of interfering with any right or privilege secured by the Act and by this Part because the individual has made a complaint, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing under this Part, or in any other way asserted his or her rights under this Part. The Chairman or his or her designee may agree to keep confidential the identity of any complainant except to the extent that disclosure would be required by law in proceedings for the enforcement of this Part.

#### § 1615.17 Procedure for Obtaining Compliance.

(a) *General.* If compliance with this Part cannot be assured by informal means, compliance with this Part shall be effected by termination of or refusal to grant or to continue Federal financial assistance in accordance with the procedures set forth in the Guidelines for the Enforcement of Title VI of the Civil Rights Act of 1964, 28 CFR 50.3 or other means authorized by law.

(b) Procedure for termination or refusal to grant or continue assistance. An order terminating or refusing to grant or continue Federal financial assistance shall become effective only after:

(1) The Chairman or his or her designee has advised the applicant or recipient that such applicant or recipient has failed to comply and has determined that compliance cannot be secured by voluntary means.

(2) There has been an express finding on the record by the Chairman or his or her designee, after opportunity for hearing, of a failure by the applicant or recipient to comply with a requirement imposed by or under this Part;

(3) The action has been approved by the Chairman pursuant to § 1615.19; and

(4) The expiration of 30 days after the Chairman has filed, with the Committee

of the House and the Committee of the Senate having legislative jurisdiction over the program or activity involved, a full written report of the circumstances and the grounds for such action. The termination or refusal to grant or continue assistance shall be limited to the particular political entity, or part thereof, or other recipient as to which a finding of noncompliance with section 504 has been made and shall be limited in its effect to the particular program or part thereof in which such noncompliance has been so found.

(c) *Other means authorized by law.*

No action to effect compliance with section 504 by any other means authorized by law shall be taken until: (1) The Chairman has determined that compliance cannot be secured by voluntary means, and the recipient or other person against whom action will be sought has been notified in writing of such determination; and (2) The expiration of at least 10 days from the mailing of such notice to the recipient has taken place.

(d) *Notice to Attorney General.* The Commission shall notify the Attorney General in writing of instances of probable noncompliance determined as the result of the above procedures. In any case in which negotiations have continued for more than sixty days after determination of probable noncompliance, the Attorney General will be notified in writing; and such written notification shall set forth the reasons for, and the circumstances surrounding, the protracted negotiations and shall explain the delay in concluding such negotiations.

#### § 1615.18 Hearings.

(a) *Opportunity for hearing.*

Whenever an opportunity for a hearing is required by § 1615.17(b), reasonable notice shall be given by certified mail, return receipt requested, to the affected applicant or recipient. This notice shall fix a date not less than 3 weeks after the date of receipt of such notice within which the applicant or recipient may file with the Chairman a request in writing that the matter be scheduled for hearing. An applicant or recipient may waive a hearing and submit written information and argument for the record. The failure of an applicant or recipient to request a hearing under this paragraph or to appear at a hearing for which a date has been set shall be deemed to be a waiver of the right to a hearing under § 1615.17(b) and consent to the making of a decision on the basis of such information as is available to the Chairman.

(b) *Time and place of hearing.* Hearings shall be held at the Office of

the Commission in Washington, D.C., unless the Chairman determines that the convenience of the applicant or recipient or of the Commission requires that another place be selected. Hearings shall be held at a time fixed by the Chairman before a hearing examiner appointed in accordance with Section 3105 of Title 5, United States Code, or detailed under Section 3344 of Title 5, United States Code.

(c) *Right to Counsel.* In any proceeding under this section, the applicant or recipient and the Commission shall have the right to be represented by counsel.

(d) *Procedures, evidence, and record.*

(1) The hearing, decision, and any administrative review thereof shall be conducted pursuant to this Part, but rules or principles designed to assure production of the most credible evidence available and to subject testimony to test by cross-examination shall be applied, where reasonably necessary, by the hearing examiner conducting the hearing. A transcript shall be made of the oral evidence except to the extent the substance thereof is stipulated to for the record. All decisions shall be based upon the hearing record.

(2) The hearing record including but not limited to the transcript of oral testimony given at the hearing, all documentary evidence introduced under the modified rules of evidence applied by the hearing examiner, and all other exhibits or proof so introduced accompanied by written recommended findings of fact and conclusions of law shall be prepared by the hearing examiner and submitted to the Chairman for final agency decision.

(e) *Consolidated or joint hearings.* In cases in which the same or related facts are asserted and which constitute either (1) Non-compliance with this Part with respect to two or more types of Federal financial assistance to which this Part applies, or (2) non-compliance with both this Part and the regulations of one or more other federal departments or agencies issued under section 504, the Chairman may, by agreement, where necessary, with such other departments or agencies, provide for conduct of the consolidated or joint hearings, and for the application to such hearings of rules or procedures not inconsistent with this Part. Final decisions in such cases, insofar as this Committee is concerned, shall be made in accordance with § 1615.19.

#### § 1615.19 Decisions and Notices.

(a) *Procedure when a hearing has been held.* The hearing examiner shall make a recommended decision, including findings of fact, conclusions of

law and a proposed disposition, and a copy of such recommended decision shall be mailed by certified mail (return receipt requested) to the Chairman, to the applicant or recipient and the complainant, if any. The applicant or recipient and the complainant, if any, may, within 30 days after the receipt of such notice of recommended decision, file with the Chairman its exceptions to the recommended decision, and reasons therefor. The Chairman may accept, reject or modify the recommended decision of the hearing examiner. The decision of the Chairman shall be the final decision of the agency. A copy of this decision shall be sent to the applicant or recipient, and to the complainant, if any.

(b) *Procedure when hearing is waived.* Whenever a hearing is waived pursuant to section 1615.18(a), a decision shall be made by the Chairman on the record and a written copy of such decision shall be sent to the applicant or recipient, and to the complainant, if any.

(c) *Content of orders.* The final decision may provide for termination of, or refusal to grant or continue, Federal financial assistance, in whole or in part, to the program involved and contain such terms, conditions, and other provisions as are consistent with and will effectuate the purpose of the Act and this Part, including provisions designed to assure that no Federal financial assistance will thereafter be extended by the Commission under such program to the applicant or recipient determined by such decision to have failed to comply with requirements imposed by or under this part unless and until it corrects its non-compliance and satisfies the Chairman that it will henceforth fully comply with this part.

(d) *Post-termination proceedings.* (1) An applicant or recipient adversely affected by an order issued under paragraph (c) of this section shall be restored to full eligibility to receive Federal financial assistance from the Commission if it satisfies the terms and conditions of that order for such eligibility and brings itself into compliance with this Part and the Act, and provides reasonable assurance that it will fully comply with this Part, and the Act, in the future. (2) Any applicant or recipient adversely affected by an order entered pursuant to paragraph (c) of this section may at any time request the Chairman to restore fully its eligibility to receive Federal financial assistance from the Commission. Any such request shall be supported by information showing that the applicant or recipient has met the requirements of paragraph (d) (1) of this section. If the

Chairman determines that those requirements have been satisfied, he or she shall restore such eligibility. (3) If the Chairman denies any request made under paragraph (d)(2) of this section, the applicant or recipient may submit a request in writing for a hearing, specifying why it believes the Chairman to have been in error. It shall thereupon be given an expeditious hearing by the Chairman, with a decision on the record in accordance with rules or procedures issued by the Chairman. The Applicant or recipient will be restored to such eligibility if it proves at such a hearing that it satisfied the requirement of subparagraph (d)(1) of this section. (4) While proceedings under paragraph (d) of this section are pending, the sanctions imposed by the order issued under paragraph (c) of this section shall remain in effect.

#### § 1615.20 Judicial review.

Action taken under the Act by the Chairman or the Commission is subject to judicial review as provided under section 505 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794a(2).

#### § 1615.21 Interagency cooperation.

(a) Where each of a substantial number of recipients is receiving assistance for similar or related purposes from the Commission and one or more other agencies; or where the Commission and one or more agencies cooperate in administering assistance for a given class of recipients, the agencies shall (1) Coordinate compliance with section 504 and (2) designate one of the agencies as the primary agency for section 504 compliance purposes.

(b) The Commission in conducting a compliance review or investigating a complaint of an alleged section 504 violation shall notify any other affected agency upon exercise of its jurisdiction and shall inform it of the findings made. Reviews or investigations may be made on a joint basis.

#### § 1615.22 Coordination with sections 502 and 503.

The Commission shall consult with the Architectural and Transportation Barriers Compliance Board in developing requirements for the accessibility of new facilities and alterations, as required in § 1615.12 and in enforcing such requirements with respect to facilities that are subject to section 502 of the Rehabilitation Act of 1973, as amended.

The Commission shall coordinate with the Department of Labor in enforcing requirements concerning employment discrimination with respect to recipients

that are also federal contractors subject to section 503 of the Rehabilitation Act of 1973, as amended.

#### § 1615.23 Effect on other regulations, forms, and instructions.

(a) *Effect on other regulations.* All regulations, orders, or like decisions issued before the effective date of this Part by any officer of the Commission or by any predecessor of such an officer, which impose requirements designed to prohibit any discrimination against individuals on the ground of handicap under any program to which this part applies, and which authorize the termination of or refusal to grant or to continue Federal financial assistance to any applicant for or recipient of such assistance under such program for failure to comply with such requirements, are hereby superseded to the extent that the discrimination against which they are directed is prohibited by this Part, except that nothing in this Part shall relieve any person of any obligation assumed or imposed under any such superseded regulations, order or like directive before the effective date of this Part.

(b) *Forms and instructions.* The Chairman may issue and make available to all interested persons written forms and detailed instructions and procedures for effectuating this Part regarding programs to which this Part applies and for which he or she is responsible.

(c) *Supervision and coordination.* The Chairman may from time to time assign to officials of the Commission, or to officials of other departments or agencies of the government with the consent of such departments or agencies, responsibilities in connection with effectuation of the purposes of section 504 and this Part including the achievement of effective coordination and maximum uniformity within the Commission and within the Executive Branch of the government in the application of section 504.

The Chairman may delegate in writing any function assigned to him or her (other than responsibility for final decision as provided in § 1615.19 of this Part). Any action taken, determination made or requirement imposed by an official of another department or agency acting pursuant to an assignment or delegation of responsibility under this paragraph shall have the same effect as though such action had been taken by the Chairman of the Commission.

#### § 1615.24 Severability.

If either any provision of any Section of this Part, or any section of this Part in its entirety, is held to be invalid (as

being in conflict with any provision of the Constitution of the United States or any provision of the Constitution of any state of the Union, or the provisions of any controlling federal or state statute, or any superior provisions of any federal regulations, Orders or Directive from another federal agency or Department), by any Court of competent jurisdiction of the United States or any state of the Union, or by a federal administrative agency or body of superior rank and authority to the Commission, each provision or section of this Part shall be deemed to be separate and apart from any other provision or Section of this Part. Thus, the declared invalidity or unconstitutionality of any such provision of any section of this Part (or of any Section of this Part in its entirety) shall not effect or taint the continuing validity and effectiveness of any and all remaining provisions and Sections of this Part.

#### APPENDIX A—CURRENT COMMISSION PROGRAMS COVERED BY THESE REGULATIONS

This Appendix sets forth the principal programs to which the Equal Employment Opportunity Commission provides Federal financial assistance, and which therefore are covered by these regulations. It is not intended to be all inclusive.

(1) *Contracts with State Fair Employment Practices Agencies:* The Commission has an ongoing contract program with a number of state and local fair employment practices agencies. Participating agencies receive funding from the Commission in exchange for their agreement to process a certain number of charges of discrimination per year and to improve their charge processing systems. This program strengthens and assists these agencies in carrying out their missions under their respective state or local fair employment practice laws. As a corollary, the Equal Employment Opportunity Commission receives a benefit in that it is able to avoid duplication in its own investigative efforts in cases investigated by the state or local agencies.

(2) *Attorney Loan Fund Program:* Under this program, the Commission makes limited funds available to private attorneys to help defray the plaintiff's costs in bringing litigation under Title VII of the Civil Rights Act of 1964, as amended. Attorneys are required to reimburse the loan fund if they prevail in the law suit and recover their costs.

(3) *Area Bar Center (ABAR) Program:* The Commission has recently instituted a program to establish and fund five "Area Bar Centers" (ABAR's). These centers, to be administered by non-profit and educational organizations, will provide technical assistance and training to attorneys representing plaintiffs in litigation brought under Title VII of the Civil Rights Act of 1964, as amended, the Age Discrimination in Employment Act of 1967, as amended, the Equal Pay Act of 1963 and Section 501 of the Rehabilitation Act of 1973, as amended.

Such cooperative assistance is authorized by Section 705(g)(1) and 709(b) of Title VII of the Civil Rights Act of 1964 as amended, Section 42 U.S.C. 2000e-4(g)(1) and Section 2000e-8(b) respectively. Section 705(g)(1) of Title VII authorizes the Commission to carry forward the underlying purposes of the Title by utilizing state and regional agencies, both public and private, or individuals. Section 709(b) of Title VII specifically authorizes the Commission to cooperate with, share information with, and assist in every way state or local authorities established to foster and enforce the equal employment opportunity rights of all citizens guaranteed by Title VII.

[FR Doc. 79-36769 Filed 11-28-79; 8:45 am]

BILLING CODE 6570-06-M

## DEPARTMENT OF TRANSPORTATION

### Coast Guard

#### 33 CFR Part 117

[CGD 79-162]

#### Drawbridge Operation Regulations; Napa River, CA

**AGENCY:** Coast Guard, DOT.

**ACTION:** Proposed Rule.

**SUMMARY:** At the request of the California Department of Transportation (CALTRANS), the Coast Guard is considering changing the regulation for the Imola Avenue bridge across the Napa River, Napa, California to require six months' advance notice. This proposal is being made because of extremely infrequent requests for opening. This action will relieve the bridge owner of the burden of having a person readily available to open the draw while still providing for the reasonable needs of navigation.

**DATE:** Comments must be received on or before December 31, 1979.

**ADDRESS:** Comments should be submitted to and are available for examination at the office of the Commander (oan), Twelfth Coast Guard District, 630 Sansome Street, Room 932, San Francisco, CA 94126.

**FOR FURTHER INFORMATION CONTACT:** Wayne R. Till, Chief, Bridge Section, Twelfth Coast Guard District, 630 Sansome Street, Room 932, San Francisco, CA 94126 (415-556-8668).

**SUPPLEMENTARY INFORMATION:** Interested persons are invited to participate in this proposed rule making by submitting written views, comments, data or arguments. Persons submitting comments should include their name and address, identify the bridge, and give reasons for concurrence with or any recommended change in the proposal.

The Commander, Twelfth Coast Guard District, will evaluate all

comments received and decide on a final course of action. The proposed regulations may be changed in the light of comments received.

**DRAFTING INFORMATION:** The principal persons involved in drafting this proposal are: Wayne R. Till, Project Manager, Chief, Bridge Section and Lieutenant Commander Richard E. Peyser, Project Attorney, Assistant Legal Officer, Twelfth Coast Guard District.

#### Discussion of the Proposed Regulations

This proposal is being considered because of infrequent requests for openings of the bridge. CALTRANS records indicate that the bridge has not been opened for the passage of vessels since 1976. It was opened once in 1976, ten times in one month during 1975 for a construction project, and once in 1973. Commercial vessels, with the exception of marine construction equipment, have ceased operations upstream of the bridge. Because of the 32-foot vertical clearance above Mean Lower Low Water provided by the closed bridge, the only non-commercial vessel operating upstream of the bridge which requires an opening is the sea scout ship #90. Even that vessel only needs openings at extremely high water stages. This proposal also contains some minor editorial changes. The Coast Guard feels this request may have merit and is hereby soliciting public comment.

In consideration of the foregoing, it is proposed that Part 117 of the Title 33 of the Code of Federal Regulations be amended by revising § 117.712(i) to read as follows:

#### PART 117—DRAWBRIDGE OPERATION REGULATIONS

§ 117.712 Tributaries of San Francisco Bay and San Pablo Bay, CA.

\* \* \* \* \*

(i) *Mare Island Strait, Napa River, and their tributaries.* \* \* \*

(3) Imola Avenue highway bridge at Napa. At least six months' advance notice required.

\* \* \* \* \*

(Sec. 5, 28 Stat. 362, as amended, sec. 6(g)(2), 80 Stat. 937; 33 U.S.C. 499, 49 U.S.C. 1655(g)(2); 49 CFR 1.46(c)(5)).

Dated: November 19, 1979.

**H. G. Holmgren,**

*Captain, U.S. Coast Guard, Commander (Acting), Twelfth Coast Guard District.*

[FR Doc. 79-36766 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-14-M

## VETERANS ADMINISTRATION

## 38 CFR Part 3

## Veterans' Benefits; Government-furnished Headstone or Marker

AGENCY: Veterans Administration.

ACTION: Proposed Regulation Change.

**SUMMARY:** The Veterans Administration is proposing to increase the monetary allowance payable in lieu of a Government-furnished headstone or marker from \$50 to \$53. The need for this action results from the fact that the actual cost of a Government-furnished headstone or marker increased from \$50 to \$53. The effect of this proposed amendment would be to permit payment of up to \$53 in lieu of a Government-furnished headstone or marker.

**DATES:** Comments must be received on or before December 31, 1979. It is proposed to make this change effective October 1, 1979.

**ADDRESSES:** Send written comments to: Administrator of Veteran Affairs (271A), Veterans Administration, 810 Vermont Avenue, N.W., Washington, D.C. 20420. Comments will be available for inspection at the address shown above during normal business hours until January 8, 1980.

**FOR FURTHER INFORMATION CONTACT:** T. H. Spindle Jr. (202-389-3005).

**SUPPLEMENTAL INFORMATION:** Under 38 CFR 3.1612 the Veterans Administration is authorized to pay a monetary allowance in lieu of furnishing a headstone or marker at Government expense under the provisions of 38 CFR 1.631(a)(2) and (b). The amount of the allowance is the lesser of the actual cost of acquiring a non-Government headstone or marker (or adding identifying information to an existing marker) or the average actual cost of a Government-furnished headstone or marker for the fiscal year preceding the fiscal year in which the non-Government headstone or marker was furnished (or identifying information added). 38 CFR 3.1612(e)(2).

The average actual cost to the Veterans Administration of headstones and markers furnished at Government expense for fiscal year 1979 (October 1, 1978 through September 30, 1979) is \$53. Consequently, we are amending § 3.1612 to include this information.

The Veterans Administration does not consider this to be a significant proposal since no compliance burdens or costs are imposed.

## Additional Comment Information

Interested persons are invited to submit written comments, suggestions, or objection regarding the proposal to the Administrator of Veterans' Affairs (271A), Veterans Administration, 810 Vermont Avenue, NW., Washington, DC 20420. All written comments received will be available for public inspection at the above address only between the hours of 8 am and 4:30 pm Monday through Friday (except holidays) until January 8, 1980. Any person visiting Central Office for the purpose of inspecting any such comments will be received by the Central Office Veterans Services Unit in room 132. Such visitors to any VA field station will be informed that the records are available for inspection only in Central Office and furnished the address and the above room number.

Approved: November 21, 1979.

By direction of the Administrator.

John J. Leffler,

Associate Deputy Administrator.

In § 3.1612, paragraph (e)(2)(ii) is revised to read as follows:

§ 3.1612 Monetary allowance in lieu of a Government-furnished headstone or marker.

(e) Payment and amount of the allowance. \* \* \*

(2) The amount of the allowance payable is the lesser of the following:

(ii) The average actual cost, as determined by the Veterans Administration, of headstones and markers furnished at Government expense for the fiscal year preceding the fiscal year in which the non-Government headstone or marker was purchased or the services for adding the veteran's identifying information on an existing headstone or marker were purchased. The average actual cost of headstones and markers furnished at Government expense for fiscal year 1978 (October 1, 1977 through September 30, 1978) is \$50 and \$53 for fiscal year 1979 (October 1, 1978 through September 30, 1979).

(Veterans' Housing Benefits Act of 1978, Pub. L. 95-476; (38 U.S.C. 906(d)))

[FR Doc. 79-36799 Filed 11-28-79; 8:45 am]

BILLING CODE 8320-01-M

## ENVIRONMENTAL PROTECTION AGENCY

## 40 CFR Part 761

[FRL 1367-6; OPTS-62005 (PCB/RR-5)]

## Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Clarification and Proposed Amendment on Hydraulic Machines

AGENCY: Environmental Protection Agency.

ACTION: Proposed amendment and notice of clarification.

**SUMMARY:** This notice clarifies which hydraulic machines are subject to the November 1, 1979 testing requirements of § 761.31(e) of the Polychlorinated Biphenyl (PCB) Manufacturing, Processing, Distribution in Commerce, and Use Prohibition Rule. The Agency is also proposing to amend the PCB Rule to require testing of some other types of hydraulic systems by forty-five (45) days after the rule becomes effective.

**DATES:** Written comments on the proposed amendment are requested and should be received no later than December 31, 1979. Requests to participate in the informal hearing should be received by the same date. The informal hearing, if requested, will be held in Washington, DC on January 20, 1980. The exact time and location of the hearing will be made available through the Industry Assistance Office which can be reached by calling the toll-free number (800) 424-9065 or 554-1404 for calls local to Washington, DC.

**ADDRESSES:** All comments should be sent to:

Document Control Officer, TS-793, US Environmental Protection Agency, 401 M St., SW, Washington, DC 20460, Attention: Mrs. Joni T. Repasch.

Requests to participate in the informal hearing should be sent to:

Ms. Linda Thomson, Hearing Clerk, TS-794, US Environmental Protection Agency, 401 M St., SW, Washington, DC 20460.

All comments and requests to participate in the hearing should bear the control number OPTS-62005 (PCB/RR-5). The hearing, if requested, will be held in Washington, DC.

## FOR FURTHER INFORMATION CONTACT:

Mr. John Ritch, Director, Industry Assistance Office, TS-799, US Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460, Phone toll free: 800-424-9065 [in Washington, DC, Call 554-1404].

**SUPPLEMENTARY INFORMATION:** Section 761.31(e) of the PCB Manufacturing,

Processing, Distribution in Commerce, and Use Prohibition Rule (44 FR 31514, May 31, 1979) regulates use of PCBs in hydraulic systems. EPA has received correspondence requesting an interpretation as to which PCB hydraulic systems are subject to the November 1, 1979 testing requirement established by § 761.31(e)(1). Although this section might be read to cover all hydraulic systems, a review of the preamble to the final rule, the support document, and the Economic Impact Analysis\* (hereafter Versar Report) which accompanied the final rule, indicates that a narrower scope was intended. An analysis of these documents follows.

There is no definition of "hydraulic system" or "PCB hydraulic system" in the definition section of the rule. See § 761.2 (44 FR at 31543). However, the preamble notes that about 1750 hydraulic systems are expected to be affected by § 761.31(e). Specifically, the preamble states:

Owners of hydraulic systems with PCB-containing hydraulic fluid will have to test, drain, and refill these systems periodically. As many as 1750 systems including metal die-casting and foundry equipment are believed to be affected by the rule . . . 44 FR at 31540.

The Versar Report also discusses the estimated number of hydraulic systems and the gallons per system expected to be subject to § 761.31(e). The Versar Report states:

*Total PCBs presently in use:* Total capacity of all of the hydraulic systems that at one time used PCB based hydraulic fluids may be (700 die-casting machines × 400 gallons per machine + 1000 other systems × 350 gallons per system =) 630,000 gallons.

Versar Report at 90.

The Versar Report further discusses the number of affected systems as follows:

Identification of all systems that contained PCB hydraulic fluids will require the analysis of the fluid in many systems which might have contained PCBs. As many as 2500 die-casting machines (Versar, 1978, p. 75) and perhaps as many other hydraulic systems might have to be tested to identify the approximately 1700 systems which used PCB fluid and to evaluate the extent of contamination from the use of reclaimed fluid . . . Costs for the analysis program required . . . might total (1700 to 5000 systems × \$270 per sample =) \$460,000 to \$1,350,000.

Versar Report at 92 (emphasis added).

In view of the estimated numbers of affected hydraulic systems given in the preamble and Versar Report, the Agency clearly intended the regulation to apply only to hydraulic metal production and forming operations such as die-casting, and metal forging, foundry, and extruding systems that

once contained PCBs. If the regulation as it was written were now held to cover other hydraulic systems, such as forklift trucks, the estimated number of affected systems given in the preamble and Versar Report would be grossly inaccurate. In light of this analysis of the documentation for the PCB Rule, EPA interprets that the November 1, 1979 testing requirement of § 761.31(e)(1) is limited to hydraulic systems engaged in metal production and forming operations.

EPA, however, is aware that certain types of other hydraulic machines owned by metal production and forming operations, but not actually engaged in those operations, could contain PCBs as a result of previous servicing practices. These systems such as forklift trucks, elevator lifts, and loading dock levelers did not use PCB hydraulic fluid because this fluid is significantly more expensive than other readily available substitute hydraulic fluids. In addition, these systems did not need to use the high thermally stable PCB hydraulic fluid, a characteristic that made it preferable in the high temperature operations associated with the production and forming of metal. However, in some cases, persons in metal production and forming operations may have used PCB hydraulic fluid to top off other hydraulic machines such as forklift trucks, elevator lifts, and loading dock levelers when non-PCB hydraulic fluid was unavailable. EPA, therefore, is proposing to require in certain circumstances that each person who owns hydraulic systems other than those actually engaged in the production or forming of metal but located at the same facility, assume that all systems contain greater than 50 ppm PCB or test their systems for PCBs by 45 days after the rule becomes effective. Under this amendment, hydraulic systems such as forklifts would have to be tested if they are used at a facility which was or is now involved in metal production or forming operations and could have been topped off with PCBs. Testing would not be required where it is impossible to top off hydraulic systems with any hydraulic fluid without actually destroying the system. EPA has no reason to believe that such systems originally would have been filled with PCBs.

EPA is seriously considering permitting the use of sampling rather than requiring testing of all hydraulic systems. EPA requests comments on this possible option and welcomes suggestions on sampling methods. Commentors providing a sampling method should describe in detail the

rationale behind the method they prefer and identify and justify any variables that must be predefined.

Hydraulic fluid from hydraulic systems used metal production and forming operations and other hydraulic machines that have been tested and determined to contain 50 ppm or greater PCB must be disposed of in accordance with the regulation.

In light of these contemplated changes described above, EPA also has proposed a minor change to § 761.31(e)(3) to clarify that persons may not add PCBs to any hydraulic machine, not just those that are identified in § 761.31(e)(1) and (7).

The record in this rulemaking includes the rulemaking record for the 1979 PCB regulation (44 FR 31514, May 31, 1979). EPA has also received correspondence on the scope of § 761.31(e), and this correspondence has been placed in the record.

EPA requests comments on this proposed amendment and has identified below some pertinent questions.

(1) What percent of hydraulic systems other than metal producing or forming systems at these facilities are likely to contain PCBs at concentrations of greater than 50 ppm?

(2) How long will it take for a company to sample, test, and refill where appropriate these other hydraulic machines?

(3) How many other hydraulic machines do metal producing and forming facilities own to which PCBs could have been added? What is the cost anticipated per sample to analyze for PCBs? What is the anticipated cost of testing hydraulic machines at these facilities?

(4) Are there locations other than metal producing or forming facilities where hydraulic systems are likely to be contaminated with PCBs? If so, please describe those locations. In the event that other locations are identified, EPA may regulate them in this rulemaking.

EPA urges food and feed handling establishments to investigate the possibility that their hydraulic systems may be contaminated with PCBs, in light of recent incidents where food was found to be contaminated with PCBs. EPA has no precise information to indicate that food and feed handling establishments bought PCBs for use in their hydraulic systems; however, the possibility exists that PCBs might have been introduced into such systems. EPA encourages food and feed handling establishments, if they have any reason to believe that this kind of contamination might have occurred, to test their hydraulic systems for PCBs as soon as possible. Affected persons should also now review applicable requirements of the Food and Drug Administration. (See 21 CFR 109.15, 110.40(b), 509.15).

Under Executive Order 12044, EPA is required to judge whether a regulation is "significant" and therefore subject to the procedural requirements of the Order or whether it may follow other specialized development procedures. EPA labels these regulations "specialized." This proposed rule has been reviewed, and it has been determined that it is a specialized regulation not subject to the procedural requirements of Executive Order 12044.

\*Versar, Inc., *PCB Manufacturing, Processing, Distribution in Commerce, and Use Bans Regulation: Economic Impact Analysis*, EPA 230-03/79-001, Springfield, Virginia, March 1979.

Statutory Authority: Section 6(e) of the Toxic Substances Control Act, 15 U.S.C. 2605. The preamble to the Manufacturing, Processing, Distribution in Commerce, and Use Prohibition Rule at 44 FR 31514 delegates authority to amend or modify this rule to the Assistant Administrator for Pesticides and Toxic Substances.

Dated November 22, 1979.

Steven D. Jellinek,

*Assistant Administrator for Pesticides and Toxic Substances.*

It is proposed to amend 40 CFR 761.13 by revising the first sentence of paragraph (e)(1) and paragraph (e)(3) and by adding a new paragraph (e)(7) to read as follows:

§ 761.13 Authorizations.

\* \* \* \* \*

(e) Use in Hydraulic Systems.

(1) Each person who owns a hydraulic system engaged in the production or forming of metal must test for the concentration of PCBs in the hydraulic fluid of each system by November 1, 1979, and at least annually thereafter. \*

(3) Addition of PCBs to any hydraulic system is prohibited;

(7) Persons who own hydraulic systems other than those systems engaged in the production or forming of metal must assume that all their other hydraulic systems contain greater than 50 ppm PCB or test the other hydraulic systems (including such items as forklifts, elevators, and levelers) by [45 days after final rule becomes effective] if the hydraulic systems (A) could have been filled or topped off with PCB hydraulic fluid and (B) are being used at facilities which have or had PCB hydraulic systems engaged in the production or forming of metal. All systems that are tested under subparagraph (7) that have 50 ppm or

greater PCB are subject to the requirements of 761.31(e)(2).

[FR Doc. 79-36710 Filed 11-28-79; 8:45 am]

BILLING CODE 6560-01-M

## VETERANS ADMINISTRATION

### 41 CFR Parts 8-7, 8-18

#### Construction Contracts

**AGENCY:** Veterans Administration.

**ACTION:** Proposed Regulatory Development.

**SUMMARY:** The Veterans Administration is proposing to amend its procurement regulations by revising two provisions relating to construction contracts. The first concerns the release of claims portions of the Payments clauses which are proposed to be revoked as being redundant to the Federal Procurement Regulations. The second concerns the policy on progress payments which is proposed to be changed to remove the mandate against retainage of a percentage of progress payments. That change restores the option of retainage or full payment to the contracting officer and conforms Veterans Administration practice to that of other Federal agencies.

**DATES:** Comments must be received on or before December 31, 1979. It is proposed to make this change effective 30 days after date of final approval.

**ADDRESSES:** Send written comments to: Administrator of Veterans Affairs (271A), Veterans Administration, 810 Vermont Avenue, N.W., Washington, D.C. 20420. Comments will be available for inspection at the address shown above during normal business hours until January 8, 1980.

**FOR FURTHER INFORMATION CONTACT:** A. G. Vetter (202-389-2334).

#### Additional Comment Information

Interested persons are invited to submit written comments, suggestions or objections regarding these documents to the Administrator of Veterans Affairs (271A), Veterans Administration, 810 Vermont Avenue, N.W., Washington, DC 20420. All written comments received will be available for public inspection at the above address only between the hours of 8 am and 4:30 pm Monday through Friday (except holidays) until January 8, 1980. Any person visiting Central Office for the purpose of inspecting any such comments will be received by the Central Office Veterans Services Unit in room 132. Such visitors to any VA field station will be informed that the records are available for inspection only in

Central Office and furnished the above address and room number.

Approved: November 21, 1979.

By direction of the Administrator.

John J. Leffler,

*Associate Deputy Administrator.*

1. In § 8-7.650-14, paragraphs (f) of the clauses in paragraphs (a) and (b) are revoked.

#### § 8-7.650-14 Payments to contractors.

(a) For contracts that do not contain a section entitled "Network Analysis System (NAS), Clause 7, General Provisions, SF 23A," will be implemented as follows:

##### Payments to Contractors

\* \* \* \* \*

(f) [Revoked]

(b) For contracts that contain a section entitled "Network Analysis System (NAS), Clause 7, General Provisions, SF 23A," will be implemented as follows

##### Payments to Contractors

\* \* \* \* \*

(f) [Revoked]

#### § 8-18.202 [Amended]

2. Section 8-18.202 is amended by deleting the reference "§ 8-2.203-1" in the last sentence.

#### § 8-18.203-1 [Revoked]

3. Section 8-18.203-1 is revoked.

(38 U.S.C. 210 (c), 40 U.S.C. 486(c))

[FR Doc. 79-36783 Filed 11-28-79; 8:45 am]

BILLING CODE 8320-01-M

## DEPARTMENT OF TRANSPORTATION

### Materials Transportation Bureau

#### 49 CFR Part 192

[Docket No. PS-60; Notice 1]

#### Transportation of Natural and Other Gas by Pipeline; Hot Taps in Gas Pipelines

**AGENCY:** Materials Transportation Bureau (MTB).

**ACTION:** Notice of Proposed Rulemaking (NPRM).

**SUMMARY:** This notice proposed to amend § 192.627 to ensure that when pressurized gas pipelines are connected, they have their internal gas pressures positively ascertained by pressure gages prior to the final step of allowing gas to flow between them. This practice is intended to avoid accidents resulting from mistakenly connecting two lines of incompatible pressures.

**DATE:** Comments must be received by March 1, 1980. Late filed comments will be considered as far as practicable.

**ADDRESS:** Comments should identify the docket and notice number and be submitted in triplicate to the Docket Branch, Materials Transportation Bureau, Department of Transportation, 400 7th Street, SW., Washington, D.C. 20590. Comments are available at the Docket Branch, Room 8426. The Docket Branch is open Monday through Friday from 8:30 a.m. to 5:00 p.m.

**FOR FURTHER INFORMATION CONTACT:** Robert F. Langley (202) 426-2082.

**SUPPLEMENTARY INFORMATION:** The National Transportation Safety Board (NTSB) in safety recommendation issued August 21, 1978, reported on an accident in Mansfield, Ohio, as follows:

At 2 p.m., e.d.t., on May 17, 1978, a Columbia Gas of Ohio, Inc., (gas company) construction crew, mistaking an 8-inch, low-pressure steel gas main for an 8-inch, high-pressure steel gas main, drilled a small pilot bit hole through the wall of the low-pressure gas main and began to cut into the pipe wall with a large diameter bit. The construction crew was making a "hot tap" to complete the final tie-in of an 8-inch, replacement gas main to the existing high-pressure system on the north side of Glessner Street in Mansfield, Ohio. The hot tap was to be made using a 3-way tapping tee which had its side outlet welded to the "live," high-pressure replacement gas main and its bottom outlet mistakenly welded to the low-pressure gas main. When the 1-inch pilot bit on the tapping machine attached to the top outlet of the tee penetrated the wall of the low-pressure gas main, gas at 42 psig pressure from the high-pressure gas system entered the 14-inch water column (w.c.) (approximately 1/2 psig the pressure in the low-pressure system in a 4.8-square-mile area of Mansfield.

By 2:20 p.m., after being overpressured for 20 minutes, the low-pressure distribution system returned to its normal pressure of 14 inches w.c. Gas was physically shut off at approximately 2,000 meters or services out of the 12,300 meters in the 4.8-square-mile area. The shutoffs were made by firemen, police, gasmen, emergency response personnel, and residents. There were no fatalities or injuries requiring hospitalization because of this accident. Property damage to 16 houses resulted from the ignition of nearby combustibles by high pilot flames; 5 of these houses were extensively damaged.

On April 28, 1979, the gas company construction crew had abandoned and capped an old main at its connection to

the 8-inch, high-pressure gas main on the north side of Glessner Avenue, on the east side of Arthur Street. At that excavation there were two 8 1/2-inch outside diameter (O.D.), coated, wrapped, and welded steel gas mains, which were identical in appearance. The high-pressure gas main was 3 feet north of and about 10 inches higher than the low-pressure gas main.

Before completing the final tie-in of the new replacement gas main to the existing 8-inch, high-pressure gas main on the west side of Arthur Street, the gas main atlas was consulted to verify the locations of the two gas mains. The atlas showed the 8-inch, high-pressure and low-pressure mains traversing Arthur Street parallel to each other. The small-scale—1 inch to 200 feet—gas main atlas did not indicate the depths of the mains or their locations from the lot line, nor did it show the mains crossing each other. However, investigations after the accident showed that the two mains crossed in the Arthur Street intersection.

In the excavation for the final tie-in west of Arthur Street, approximately 75 feet from the first excavation, the mains appeared to be in the same relative position (3 feet apart), but the north side was 4 inches lower than the south main, which made the tie-in more difficult. The construction crew welded an 8-inch, 3-way tapping tee to the top of the north main, which they presumed was the high-pressure main, and welded the side outlet of the tee to the newly installed high-pressure gas main. Next they pressure-tested the tee and new main successfully and then filled them with gas at 42 psig from the high-pressure system.

The gas company procedure manual acknowledges that it is important to recognize that operating maps may not be correct. The gas company's procedure for "By-Passing and Stopping Gas Flow" recommends that pressure gages be installed to ensure against losing pressure and customer outages. However, the tapping section of the procedure does not contain pressure gage requirements and does not mention the possibility of overpressuring a low-pressure system.

After the accident the first excavation east of Arthur Street was reopened and a pipe locator was connected directly to the high-pressure main. This main was touching another pipe in Arthur Street and could not be traced electronically. The two pipes were excavated where they were touching and were electrically shortcircuited; they were then separated. When traced with the pipe locator again, the high-pressure gas main was found to have crossed the

low-pressure gas main with two 45° elbows in the Arthur Street intersection. The gas company records did not contain field measurements of where these lines crossed and, consequently, the gas main atlases did not show this crossing.

The NSTB report went on to state that the gas company crew was qualified to make hot taps, but it was difficult to identify the correct pipeline because the two pipelines were identical. The NSTB concluded that a pressure gage tap should have been made to determine the exact location of the high pressure main.

Prior to the Mansfield, Ohio, accident, the NSTB investigated and issued safety recommendations (P-77-24 and -25) on a similar accident in Greenwich, Connecticut, on May 25, 1977. In that accident, a gas company crew tapped a 3-inch casing pipe, thinking it was the gas main, and severed the 2-inch gas main inside causing a massive gas escape. The leaking gas entered a building where it exploded and then burned, destroying three buildings, damaging one building, and injuring 10 persons. As in the Mansfield accident, the gas company crew did not positively identify the type, size, and operating pressure of the gas main to be worked on. Safety recommendations P-77-24 and P-77-25 stated that the Connecticut Natural Gas Corporation should: "Instruct its crews to ascertain positively by all possible means the type and size of existing gas line facilities before working on them." (P-77-24), and "Expedite the updating of its gas piping records as soon as possible to eliminate uncertainties on future system maintenance work." (P-77-25).

As a result of these accidents, the NSTB issued safety recommendation P-78-51 to MTB which states: "The National Transportation Safety Board recommends that the Materials Transportation Bureau of the U.S. Department of Transportation revise 49 CFR 192 to require that gas system operators verify through pressure monitoring or other means the identity of all pipelines before performing hot taps."

A copy of these NSTB safety recommendations has been included in this docket and also may be obtained by writing to Publication Section, National Transportation Safety Board, Washington, D.C. 20594.

While the NSTB recommends that 49 CFR Part 192 be changed to include a requirement that, through pressure monitoring, pipelines be identified before hot taps are made on these pipelines, MTB proposes that the pressure monitoring be done through the hot tapping equipment after the hot tap

is made, and prior to allowing gas to flow, since it is quite impossible to check gas pressure in a pipeline at the work location without first making a hot tap.

The problem, as pointed out by these accidents, is the introduction of gas to pipelines at excessive pressures such that they are pressurized beyond their maximum allowable operating pressure (MAOP) or pressurized in a manner which causes the unsafe operation of any connected and properly adjusted gas utilization equipment. The problem is caused by the failure of personnel making hot taps to properly identify the pipelines involved prior to allowing gas flow between these pipelines.

MTB recognizes that this type of operation requires skill and expertise on the part of the operator's personnel and, therefore, hot tap procedures should only be carried out by personnel trained in the use and application of hot tap equipment as now required by § 192.627. To make this point clear, the phraseology of the existing paragraph of § 192.627 is proposed to be amended.

MTB uses the term "hot tap" as defined in ANSI B31.8 and as commonly used by the pipeline industry: "Hot taps are branch piping connections made to operating pipeline or mains or other facilities while they are in operation. The connection to the branch piping and the operating line and the tapping of the operating line is done while it is under gas pressure."

Since many maps and other records of gas pipeline systems presently in use, particularly those pertaining to old pipeline systems, are not completely reliable, MTB believes that maps and other records should not be used as the only means by which a pipeline is identified. MTB believes that when trained personnel know the actual pressures within the pipelines being tapped or connected, they can react properly and prevent the introduction of gases to a pipeline at incompatible pressures. Most tapping equipment has incorporated fittings which permit a pressure gage to be installed. By using pressure gages on this type of tapping equipment, a reading can be taken of the pressure within the pipeline being tapped when the pipe has been penetrated. Since tapping equipment which incorporates gage tap fittings is readily available, MTB does not feel that amending Part 192 to require this practice would cause undue delays or expense in completing connections made by hot taps. Accordingly, § 192.627 would be amended by adding a new paragraph (b) to require the use of pressure gages to determine the pressure

in each pipeline when pressurized pipelines are connected by hot taps.

Part of NTSB's recommendation to MTB states "or other means" as an alternate to verifying the identity of all pipelines before performing hot taps. With the possible exception of the use of radioactive isotopes introduced into the gas stream, MTB is not aware, at this time, of other means (apart from maps and records) of identifying pipelines in such a manner that they can be safely connected by hot taps and gas be allowed to flow between them. Comments are invited on this issue.

It does not appear that any great hardship would be imposed by this revised rule since most operators have similar safety rules in their operating and maintenance plans. Therefore, MTB has determined that this document does not contain a major proposal requiring preparation of a regulatory analysis under DOT procedures. A draft Evaluation, however, is included in the docket.

In consideration of the foregoing, MTB proposes that Part 192 of Title 49 of the Code of Federal Regulations be amended by revising § 192.627 to read as follows:

**§ 192.627 Tapping pipelines under pressure.**

(a) Each tap made on a pipeline under pressure must be performed by a person who has demonstrated competency in the application and use of the tapping equipment.

(b) Where two or more pressurized pipelines are being connected, the pressure in each pipeline being connected must be determined by a pressure gage prior to allowing gas to flow between the pipelines.

(49 U.S.C. 1672; 49 U.S.C. 1804; 49 CFR 1.53 and App. A of Part 1)

Issued in Washington, D.C. on November 20, 1979.

**Cesar De Leon,**

*Associate Director for Pipeline Safety Regulation, Materials Transportation Bureau.*

[FR Doc. 79-38658 Filed 11-29-79; 8:45 am]

BILLING CODE 4910-60-M

**49 CFR Part 192**

[Docket No. PS-61; Notice 1]

**Transportation of Natural and Other Gas by Pipeline; Maps and Records**

**AGENCY:** Materials Transportation Bureau (MTB).

**ACTION:** Advance Notice of Proposed Rulemaking (ANPRM).

**SUMMARY:** This Advance Notice of Proposed Rulemaking invites comments

relative to the need to establish regulations which would require gas pipeline operators to have adequate maps and records of their pipeline systems. These maps and records appear necessary to show or describe the operators' gas pipeline systems in sufficient detail to enable portions or components of the pipeline systems to be readily located for construction work, maintenance, or to prevent or alleviate pipeline accidents.

**DATE:** Comments must be filed by March 1, 1980. Late filed comments will be considered as far as practicable.

**ADDRESS:** Comments should identify the docket and notice numbers and be submitted in triplicate to the Docket Branch, Materials Transportation Bureau, Department of Transportation, 400 7th Street, S.W., Washington, D.C. 20590. Comments are available at the Docket Branch, Room 8426. The Docket Branch is open Monday through Friday from 8:30 a.m. to 5:00 p.m.

**FOR FURTHER INFORMATION CONTACT:** Robert F. Langley, 202-426-2082.

**SUPPLEMENTARY INFORMATION:** The National Transportation Safety Board (NTSB) in recommendation P-78-50 recommended that MTB revise 49 CFR Part 192 to require that gas company system maps and records be maintained accurately to identify the location, size, and operating pressure of all gas pipelines. The NTSB feels that some gas pipeline accidents could be prevented if operators had accurate maps and records of their systems. As a result of its inspection and maintenance program, MTB is aware that there are gas pipeline operators with inadequate maps and records of portions of their gas pipeline systems. The inadequacies include no maps at all, maps which are drawn to such a small scale that they are unreadable, or have inaccurate measurements and other information.

There are many reasons for the inadequate maps, particularly of very old pipeline systems. Among these reasons are fires, floods, or other types of disaster which destroyed the original maps or records. The purpose of any proposed regulations would be to require accurate maps and records of new gas pipeline systems, additions, or changes to existing pipeline systems and the locating and mapping of "lost" or inadequately mapped existing gas pipelines and facilities.

Within the past few years, several accidents involving gas pipelines were due to inadequate or inaccurate maps and records of the pipeline system. For instance, a 1977 accident in Greenwich, Connecticut, which destroyed three buildings and injured 10 people was

caused by inadequate maps and records. The accident was described in NTSB's safety recommendations P-77-24 and 25 as follows:

At 2:34 p.m., on May 25, 1977, an explosion and fire destroyed a building at 65-67 Arch Street in Greenwich, Connecticut. Two adjacent buildings were also destroyed and another building was heavily damaged. Firemen evacuated residents from a two-block area 30 minutes after the explosion. The resulting fire was extinguished at 5:31 p.m. Ten persons required medical treatment for injuries caused by the accident.

Before the accident, a Connecticut Natural Gas Corporation crew was in the area to install an insulating tapping sleeve on a 2-inch gas main. The sleeve is used to electrically isolate a section of pipe without interruption of service, and is commonly used by the industry.

When the gas company crew exposed the gas main, they found that the pipe was 3 inches in diameter instead of 2 inches. The crew leader radioed the dispatch office and requested additional information from its records. The main atlas did not show any detail of the area, however. Even though a 2-inch shutoff valve for the line was 12 feet away, the crew was not aware that the 3-inch pipe they exposed was not the gas main itself but actually was a sleeve containing the 2-inch gas main.

A gas company supervisor went to the site and advised the work crew to use a 3-inch insulating tapping sleeve and to proceed with the task. While cutting through the 3-inch sleeve with a drilling machine, the 2-inch carrier pipe was also cut. This allowed natural gas at 30-psig pressure to fill the annular space between the 3-inch sleeve and the 2-inch pipe and to escape from the unsealed ends of the sleeve, 11 feet away.

The escaping gas was capped by the pavement above and migrated through the soil. It leaked through cracks in the stone foundation of the Arch Street building, 5½ feet from the severed gas main, and entered the basement where it was ignited by some undetermined source and exploded. Two supervisors in the vicinity responded independently to an emergency radio call and began to shut off valves on each side of the leak 16 minutes after the explosion.

NTSB issued safety recommendations P-77-6 through 8 as the result of an accident in Williamsport, Pennsylvania, in 1977. The following summary of the accident shows that lack of good maps or records caused considerable delay in shutting down the gas system:

At 1:36 a.m., e.s.t., on January 25, 1977, a low-order explosion and fire destroyed a house in a residential area near

Williamsport, Pennsylvania; the occupant was not seriously injured by the explosion.

At 1:44 a.m., the fire chief of the Old Lycoming Township Volunteer Fire Department, which had responded to the fire, requested that the Pennsylvania Gas and Water Company (Penn Gas) be notified of the fire and explosion. Because the serviceman assigned to emergency calls lived in a town 20 miles away, and it would have taken him 45 minutes to reach the scene of the accident because of heavy snow, a local serviceman was dispatched from Williamsport at 1:55 a.m. At 2:01 a.m., firemen again notified the gas company of strong odors of gas at the accident site.

The local serviceman arrived at 2:10 a.m. in his personal vehicle without the necessary tools and equipment to deal effectively with the gas emergency. He determined that, since there was no gas service into the house that exploded, the gas main was leaking. He telephoned his dispatcher for a street crew at 2:15 a.m.; he also drove to the gas company shop for a combustible gas indicator (CGI) and other work tools.

At 2:39 a.m., a few minutes after the street crew arrived, another explosion demolished a large house 100 feet away. A resident of the house and a bystander were killed by the explosion; several persons, including 19 firemen, were injured. Automobiles, a firetruck, and many houses within a one-block radius were damaged severely.

The first street crew was alerted and arrived too late to do anything in the 4 minutes remaining before the second house exploded. One of the crews that arrived 1½ hours later searched in vain for a high-pressure shutoff valve that was shown on the gas main drawings to be one block away. The gas pressure was finally controlled enough for a repair to be made 9½ hours later. However, the gas could not be shut off without terminating service to many customers. Although it would not have mattered in this accident because the second house exploded before the street crews could act, a delay caused by searching for nonexistent shutoff valves during an emergency could be disastrous.

One of the NTSB's recommendations (P-77-40) to Pennsylvania Gas and Water because of this accident stated: "Verify the location of all high-pressure shutoff valves shown on gas main atlases and change maps where necessary."

The following accidents reported by NTSB in special reports P-75-004 and FTW-77-FP-001 also indicate lack of records:

In 1975 in Stroudsburg, Pennsylvania, a leaking gas service, which, because of inaccurate records, was incorrectly thought to have been cut off from the source of supply, resulted in a fatality and a destroyed residence.

In 1977, failure to have adequate maps and records caused the overpressuring of a low pressure system in El Paso, Texas. The resulting fires caused \$15,000 damage.

These accidents highlight the fact that sometimes even large operators with competent staffs have system maps and accompanying records that are insufficient or inadequate to indicate with accuracy the location of underground gas facilities in order to prevent damage to these facilities and thus prevent loss of life, injuries, and loss of property. In addition to accident prevention, maps and records are also important to assure compliance with many of the operating and maintenance requirements of Part 192.

### Objective

This advance notice is not a proposal to amend the existing regulations. Its intent is to generate information to be used in evaluating means for improving pipeline safety. If the evaluation leads to the conclusion that the regulations should be amended, MTB will publish a notice of proposed rulemaking (NPRM) stating the proposed amendments and inviting comment on those proposals.

### Means

Most pipeline operators now have methods of transposing work done in the field into accurate descriptions of the actual installed system through maps and other types of records. However, MTB is concerned that there are also many operators who continue to rely on poor maps or records. Therefore, regulatory action may be needed to assure that adequate maps and records are kept.

By this notice, MTB invites early participation by interested persons in determining the type of information that should be on maps and records for them to be considered adequate.

How are maps and records currently kept for new and existing pipelines? What information should be required on a map of new facilities versus maps of existing facilities? Should pipeline safety standards prescribe the scale or media for these maps or records or should each operator choose a system or method best suited to his needs? Should the location of pipelines and other facilities be shown merely by scale or should detailed dimensions be used with tie-in points to known bounds and property lines?

In addition to the location of the pipeline, should its size and material be included on the map or record? Since grades can change due to erosion and construction, would it be practical to show the depth below grade of the pipeline and other buried pipeline facilities?

Should the location of all valves be shown on maps? If so, would it be appropriate to include such a requirement in § 192.179, Transmission line valves, and § 192.181, Distribution line valves?

Should regulator stations and vaults be shown in detail or by schematic symbol only, and MTB would like to know if such an item should be included in § 192.185.

If gas service lines were to be included on maps and in individual records, should all service lines be shown or only those service lines 2 inches and larger and should this requirement be included in §§ 192.361 and 192.365?

Would it be practical to place all the requirements for maps and records within an existing regulation such as § 192.605, Essentials of operating and maintenance; into an entirely new regulation specifically addressed to maps and records similar to the manner in which it is done in § 192.491, Corrosion control records; or would it be more practical to insert individual requirements into specific regulations?

Would there be any need to require that the maximum allowable operating pressures (MAOP) be shown on maps? This might be done by area or district.

Would it be practical to include on maps or only on written records the date of installation, the manufacturer of the material (to include pipe and appurtenances), and the method of construction i.e. welded, threaded and coupled, compression coupled, and bolted flange or collar types of construction?

In producing pipeline maps or other records, should consideration be given to noting climatic conditions (in general for the area or in evidence at the time of installation), geological and seismic conditions, and general soil conditions at the time and place of the installation? The latter to be in addition to any records of soil conditions produced to aid compliance with Subpart I 49 CFR Part 192.

Also, in addition to the previously mentioned "class location", would it be practical to require records of existing and projected population and demographic characteristics associated with the area?

If class location were shown on individual maps, would this be a help in

upgrading the pipelines to conform to requirements of § 192.611?

Would showing abandoned gas pipelines and facilities, in particular those that have been put to other uses, such as for casings or sleeves, be a useful requirement?

MTB would appreciate answers or comments on these questions. In addition, cost data of implementing the suggested regulations, particularly for existing pipelines, should be included with the comments.

No Regulatory Analysis is presented, as yet; however, a draft Evaluation is included in the public docket.

(49 CFR U.S.C. 1672; 49 CFR Part 1.53(a), Appendix A of Part 1 and Paragraph (b)(2) of Appendix A to Part 106.)

Issued in Washington, D.C., on November 20, 1979.

Cesar De Leon,

Associate Director for Pipeline Safety Regulation, Materials Transportation Bureau.

[FR Doc. 79-36654 Filed 11-29-79; 8:45 am]

BILLING CODE 4910-06-M

## Coast Guard

### 49 CFR Parts 450, 451, 452 and 453

(CGD 79-027)

### Safety Approval of Cargo Containers

**AGENCY:** Coast Guard, DOT.

**ACTION:** Proposed rule.

**SUMMARY:** The U.S. Coast Guard proposes to amend its Safety Approval of Cargo Container regulations to incorporate public comments and international discussions. Among several other changes, this document proposes to: (1) allow persons or organizations to whom an approval authority is delegated in any contracting state to obtain a delegation as an approval authority for the United States on a reciprocal basis, (2) expand and standardize the information required to be submitted by an owner or manufacturer to an approval authority, and (3) add alternative approval of new containers by design type.

**DATES:** Comments must be received on or before December 31, 1979.

**ADDRESS:** Comments should be submitted to: Commandant (G-CMC/TP24) (CGD 79-027), U.S. Coast Guard, Washington, D.C. 20593.

Comments will be available for examination at the Marine Safety Council (G-CMC/TP24), Room 2418, U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, D.C.

**FOR FURTHER INFORMATION CONTACT:** Mr. Charles H. Hochman, Cargo and

Hazardous Materials Division (G-MHM-2/TP14), Room 1406, U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, D.C. 20593, 202-426-1577.

**SUPPLEMENTARY INFORMATION:** On April 20, 1978, the U.S. Coast Guard published a Final Rule, Safety Approval of Cargo Containers, Docket CGD 73-286 (43 FR 16946), which established the domestic administrative machinery for the approval of containers which are subject to the requirements of the International Convention for Safe Containers (CSC), 1972. The background and basis for the regulations was discussed in that rulemaking. U.S. owned containers are subject to the requirements of the CSC when they enter the jurisdiction of contracting parties. The CSC came into force on September 6, 1977, for the first ten contracting parties and on January 3, 1979, for the United States. Interested persons were invited to give their views prior to the closing date, November 22, 1978.

### Drafting Information

The principal drafters of this document are Charles H. Hochman, Project Manager, Office of Merchant Marine Safety and Michael N. Mervin, Project counsel, Office of Chief Counsel.

### Discussion of Major Comments

In addition to the comments received from the public, discussions at the 19th and 20th sessions of the Intergovernmental Maritime Consultative Organization (IMCO) Containers and Cargoes Subcommittee and the 21st session of the Economic Commission for Europe (ECE) Group of Rapporteurs on Container Transport (GRCT) have attempted to develop harmonized interpretation and implementation procedures among all the contracting parties to the CSC. It is anticipated that these harmonized interpretation and implementation procedures will be used by all future contracting states when they develop their national regulations.

A change initiated by the Coast Guard involves section § 450.11, Application for delegation of authority, dealing with the delegation to persons or organizations as approval authorities. Both IMCO and GRCT have stated in their harmonized interpretation and implementation procedures that approval of containers would be facilitated if classification societies or other organizations approved by one contracting party could be authorized to act for other contracting parties under arrangements acceptable to the parties involved. To incorporate this change, which was supported by the U.S.

delegations to both the IMCO and GRCT meetings, section § 450.11(e) is added. This paragraph will allow persons or organizations to whom an approval authority is delegated in any contracting state to obtain a delegation as an approval authority for the United States on a reciprocal basis.

One comment suggested a change to section § 451.12, Application for approval by design type. This change would expand and standardize the information required to be submitted by an owner or manufacturer to an approval authority. It was also suggested that a statement be required in each application which indicates whether the design type being submitted had previously been submitted and judged unacceptable. Section § 451.12 has been amended to incorporate these changes.

One comment suggested a change to section § 451.13, Action by approval authority—approval by design type. This change would specify that the manufacturer is responsible to maintain proper control procedures during production. Section § 451.13 was amended to include this statement since approval authorities are not required to test each container. This does not relieve the approval authority from the responsibility to review the manufacturer's quality control to ensure that the containers produced will conform to the approved prototype.

Several comments pointed out that U.S. container owners were unable to obtain approval for their containers until after the CSC became effective on September 6, 1977. The United States regulations did not become effective until May 22, 1978, and the first listing of delegated approval authorities was published in the *Federal Register* on June 16, 1978. The IMCO harmonized interpretation and implementation procedures also state that in order to facilitate approvals, Administrations should treat containers built after September 6, 1977, which were not approved at the time of manufacture as existing containers for approval purposes. For examination purposes, Administrations may afford such containers the privilege of not requiring a re-examination until five years after manufacture. To incorporate these comments, a new section § 451.14, Alternative approval of new containers by design type, has been added.

Several comments suggested that section § 451.25, Required information, paragraph (d) be revised to allow the use of the owner's alpha numeric identification number on line three of the safety approval plate for all containers. The IMCO harmonized

procedures interpret the appendix to Annex I of the CSC so as to allow the use of the owner's International Organization for Standardization (ISO) alpha numeric identification codes on either new or existing containers. This may be done even if the manufacturer's serial number is available as long as the applicant keeps a record correlating his identification numbers with the manufacturer's serial numbers. Section § 451.25 has been modified to reflect this change.

A number of comments suggested that the Coast Guard amend section § 452.1, Periodic examination required, in accordance with the recommendations of the Group of Independent Experts of the European Economic Commission submitted at the 19th session of the IMCO Containers and Cargoes Subcommittee. Container owners are free to get their existing containers approved at anytime until September 6, 1982. If an owner plates an existing container prior to September 1980, it would have to be re-examined before the time at which the CSC requires that existing containers be plated and control is likely to be exercised. The purpose of the examination and plating of approved existing containers before September 6, 1982, is to obtain an approximately constant re-examination workload after 1982. Section § 452.1(a) has been revised to reflect this need.

Another change initiated by the Coast Guard concerns section § 452.3, Elements of periodic examinations. Section § 452.3(b) has been revised to incorporate provisions of the IMCO harmonized interpretation and implementation procedures. Examination records shall include the date of the last examination and a means of identifying the examiner in addition to the identification of the container. Container owners will be allowed to maintain records overseas provided that supplementary records be available on demand of the Commandant or his representative.

Several comments requested that the Coast Guard add a new § 451.8, Special Fitting for Use Only When Containers are Empty. It was requested that the restriction in Annex II of the CSC that special fittings for use only when containers are empty be marked on new containers only. The Coast Guard cannot accept the marking of new containers only. If only new containers are marked in this manner, it might imply that it was acceptable to use such fitting for lifting of loaded existing containers. In addition, it has not been agreed upon that forklift pockets are special fittings. The subject of whether

forklift pockets are special fittings will be discussed at future sessions of the IMCO Containers and Cargoes Subcommittee.

This proposal has been evaluated in accordance with DOT Regulatory Policies and Procedures 44 FR 1133 (February 26, 1979). The changes will have no impact on the regulated industry because they modify the requirements without increasing them. A copy of the draft evaluation is available for review in Room 2418, U.S. Coast Guard Headquarters, 2100 Second Street, SW., Washington, D.C., 202-426-1477.

In consideration of the foregoing, it is proposed to revise 49 CFR Parts 450-453 as follows:

#### SUBCHAPTER B—SAFETY APPROVAL OF CARGO CONTAINERS

Part	
450	General.
451	Testing and approval of containers.
452	Periodic examination of containers.
453	Control and enforcement.

#### SUBCHAPTER B—SAFETY APPROVAL OF CARGO CONTAINERS

### PART 450—GENERAL

#### Subpart A—General Provisions

Sec.	
450.1	Purpose.
450.3	Definitions.
450.5	General requirements and applicability.

#### Subpart B—Procedures for delegation to Approval Authorities

450.11	Application for delegation of authority.
450.12	Criteria for selection of Approval Authorities.
450.13	Granting of delegation.
450.14	Conditions of delegation.
450.15	Termination of delegation.
450.16	Withdrawal of delegation.

Authority: Sec. 4, 91 Stat 1475, 46 U.S.C. 1503, 49 CFR 1.46(n).

#### Subpart A—General Provisions

##### § 450.1 Purpose.

This subchapter establishes requirements and procedures for safety approval and periodic examination of cargo containers used in international transport, as defined in the International Safe Container Act.

##### § 450.3 Definitions.

(a) In this subchapter:

(1) "Approval Authority" means a delegate of the Commandant authorized to approve containers within the terms of the convention, the International Safe Container act and this subchapter.

(2) "Commandant" means the Commandant, U.S. Coast Guard or any

person designated to act on his behalf by the Commandant.

(3) "Container" means an article of transport equipment:

- (i) Of a permanent character and suitable for a repeated use.
- (ii) Specially designed to facilitate the transport of goods, by one or more modes of transport, without intermediate reloading.
- (iii) Designed to be secured and readily handled, having corner fittings for these purposes.
- (iv) Of a size that the area enclosed by the four outer bottom corners is either—

- (A) At least 14 sq.m. (150 sq.ft.), or
- (B) At least 7 sq.m. (75 sq.ft.) if it has top corner fittings.

The term "container" includes neither vehicles nor packaging; however, containers when carried on chassis are included.

(4) "Convention" means the International Convention for Safe Containers (CSC) done at Geneva December 2, 1972 and ratified by the United States on January 3, 1978.

(5) "District Commander" means the Coast Guard officer designated by the Commandant to command a Coast Guard District.

#### § 450.5 General requirements and applicability.

(a) The owner of a new or existing container used or offered for movement in international transport shall have the container approved in accordance with the procedures established by the Administration of any contracting party to the convention, except that existing containers need not be approved until September 6, 1982.

(b) The owner of an approved container used or offered for movement in international transport who—

- (1) Is domiciled in the United States and has his head office in the United States, or
- (2) Is domiciled in a country which is not a contracting party to the convention but has his principal office in the United States, shall have the container periodically examined in accordance with Part 452 of this subchapter.

(c) The owner of an approved container used or offered for movement in international transport who—

- (1) Is domiciled in the United States but has his principal office in the jurisdiction of another contracting party to the convention, or
- (2) Is domiciled in the jurisdiction of another contracting party to the convention but has his principal office in the United States, may have the container periodically examined in accordance with procedures prescribed

by the United States. If he elects to have the container examined in accordance with the procedures prescribed by the United States, the examinations must conform to Part 452 of this subchapter.

(d) The owner of an approved container used or offered for movement in international transport who is neither domiciled in nor has his principal office in the jurisdiction of a contracting party to the convention may have the container periodically examined in accordance with procedures prescribed by the United States. If he elects to have the container examined in accordance with procedures prescribed by the United States, the examinations must conform to Part 452 of this subchapter.

#### Subpart B—Procedure for Delegation to Approval Authorities

##### § 450.11 Application for delegation of authority.

(a) Any person or organization seeking delegation of authority to act as an Approval Authority may apply to the Commandant, (G-MHM), United States Coast Guard, Washington, D.C. 20590. Each application must be signed and certified by the applicant or, if the applicant is an organization, by an authorized officer of the organization. A list of delegated approval authorities may be obtained from the Commandant (G-MHM).

(b) The application must include the following information:

- (1) Name and address, including place of incorporation, if a corporation.
- (2) A description of the organization, including the ownership, managerial structure, organizational components and directly affiliated agencies and their functions utilized for supporting technical services.
- (3) A listing of the basic technical services offered.
- (4) A general description of the geographic area served.
- (5) A general description of the clients being served or intended to be served.
- (6) A description of the types of work performed by the applicant in the past, noting the amount and extent of such work performed within the previous three years.
- (7) A description of the personnel to be utilized, indicating general background and qualifications, particularly for the surveyors to be involved in the actual witnessing of tests.
- (8) A description of its means of assuring continued competence of its personnel.
- (9) A detailed schedule of the fees proposed to be charged for the approval service.

(10) Evidence of financial stability.

(11) Names of at least three business references who will furnish information regarding work performed by the applicant.

(12) A statement that the Coast Guard may inspect the applicant's facilities and records of approvals under the convention and these regulations.

(c) The application may contain any additional information the applicant deems to be pertinent.

(d) The applicant must furnish any additional information to evaluate the applicant's qualifications, if requested by the Commandant.

(e) Applications from foreign persons or organizations must contain an affidavit stating that the Administration responsible for implementing the Convention in their country has delegated to the applicant an approval authority for that Administration, and that it will also delegate similar authority to United States persons or organizations having delegations from the United States.

##### § 450.12 Criteria for selection of Approval Authorities.

(a) The commandant selects persons or organizations in accordance with the following criteria:

- (1) The person or organization is independent of manufacturers and owners in that:
  - (i) It has sufficient breadth of interest or activity, so that the loss or award of a specific contract to approve containers would not be a substantial factor in the financial well-being of the organization.
  - (ii) The employment security status of the personnel of the organization is free of influence or control of manufacturers, owners, operators or lessors of containers.
- (2) The person or organization has demonstrated the ability to competently carry out the procedures required for approval.
- (3) The person or organization has an acceptable degree of financial security.

##### § 450.13 Granting of delegation.

(a) The commandant acts on applications for delegation within 60 days of receipt.

(b) If an application for delegation does not provide sufficient information with regard to all the criteria for delegation, the Commandant denies the application. A denial of an application on this basis is without prejudice to the submission of a new or amended application.

(c) If an applicant satisfies all the criteria for delegation, the Commandant sends the applicant a letter of delegation, and assigns to the Approval

Authority an alphabetic Approval Authority identification code.

(d) If an applicant fails to satisfy all the criteria for delegation, the Commandant gives the applicant written notice of denial of his application. The notice contains all the reasons for the denial. The applicant may contest the denial by submitting additional oral or written evidence in support of its qualifications. Upon review of the evidence, the Commandant notifies the applicant of his final decision.

#### § 450.14 Conditions of delegation.

(a) The following conditions are part of every delegation:

(1) The Approval Authority shall use only testing equipment that it has determined by inspection to be suitable for the purpose.

(2) All approval numbers issued by the Approval Authority must contain the identification code, assigned to the Approval Authority by the Commandant.

(3) Each Approval Authority shall maintain the following records for a period of at least 15 years from the date of approval. (When the Approval Authority's delegation is withdrawn before such time, the records relating to the approvals issued within the prior 15 years must be turned over to the Commandant):

(i) Each notice of approval issued.

(ii) A copy of the application and final approved drawings (if applicable) to which each approval refers

(iii) The manufacturer's serial numbers and the owner's identification numbers of all containers covered by each approval.

(4) Each Approval Authority shall establish and make available to the public a schedule of fees for the approval services performed under these regulations. The fees must not be disproportionate to the costs (including transportation expense, if any) actually incurred.

(5) The Approval Authority shall grant the Commandant or his representative the right to inspect records and shall cooperate in the conduct of such inspections.

(6) The Approval Authority shall comply with any other term or condition stated in its letter of delegation.

#### § 450.15 Termination of delegation.

(a) An Approval Authority may voluntarily terminate its delegation by giving written notice of its intent to the Commandant. This notice must contain the date on which the termination is to be effective.

#### § 450.16 Withdrawal of delegation.

(a) The Commandant withdraws a delegation if:

(1) It is determined that the application for delegation contained a material misrepresentation.

(2) An Approval Authority fails to comply with a condition of delegation.

(3) An Approval Authority is incompetent.

(b) When a delegation is withdrawn, the Commandant gives to the Approval Authority:

(1) Written notice of the facts or conduct believed to warrant the withdrawal.

(2) Opportunity to submit oral or written evidence.

(3) Opportunity to demonstrate or achieve compliance with the applicable requirement.

### PART 451—TESTING AND APPROVAL OF CONTAINERS

#### Subpart A—Approval of Existing Containers

Sec.

451.1 Application for Approval.

451.3 Action by Approval Authority.

451.5 Resubmission or appeal.

451.7 Alternative approval of existing containers.

#### Subpart B—Approval of new Containers

451.11 Application for approval-general.

451.12 Application for approval by design type.

451.13 Action by Approval Authority—approval by design type.

451.14 Alternative approval of new containers by design type.

451.15 Application for individual approval.

451.16 Action by Approval Authority—individual approval

451.18 Review of denials of approval.

#### Subpart C—Safety Approval Plate

451.21 Safety approval plate required.

451.23 Plate specifications.

451.25 Required information.

Authority: Sec. 4, 91 Stat. 1475, 46 U.S.C. 1503, 49 CFR 1.46(n).

#### Subpart A—Approval of Existing Containers

##### § 451.1 Application for approval.

(a) Any owner of an existing container may apply for approval to the Commandant or to any Approval Authority.

(b) Each application must include the following for each container:

(1) Date and place of manufacture.

(2) Manufacturer's identification number, if available.

(3) Maximum operating gross weight capacity.

(4) Allowable stacking weight for 1.8G (1.8 x Gross weight in kilograms or pounds).

Note.—This value is the total load the container is designed to support when subjected to a vertical acceleration of 1.8G.

(5) A statement that the owner possesses documentary evidence that—

(i) Container of this type has been safely used in marine or inland transport for a period of at least two years; or

(ii) The container was manufactured to a design type which had been tested and found to comply with the technical conditions set out in Annex II to the convention with the exception of those technical conditions relating to the end-wall and side-wall strength tests; or

(iii) The container was constructed to standards that were equivalent to the technical conditions set out in Annex II to the convention with the exception of those technical conditions relating to end-wall and side-wall strength tests.

(6) A certification by the owner, or, if the owner is a corporation, partnership or unincorporated association, by a person authorized to make such statements for the organization, that the information provided in the application is true and correct.

##### § 451.3 Action by approval authority.

The Approval Authority (or the Commandant, if the application was submitted to the Coast Guard) issues to the owner a notice of approval or notifies the owner in writing that approval is denied, setting forth the deficiencies causing denial. Notification of approval entitles the owner to affix a safety approval plate to each container after an examination of each container concerned has been carried out in accordance with Part 452 of this subchapter. In the case of an application submitted to the Coast Guard, the Commandant acts on the application within 30 days of receipt of the application.

##### § 451.5 Resubmission or appeal.

(a) Upon receipt of a denial of approval for certain containers, an owner may correct the noted deficiencies and resubmit the application without prejudice.

(b) An applicant aggrieved by a decision of an approval authority may obtain review of the decision by the Commandant. The decision of the Commandant is final.

##### § 451.7 Alternative approval of existing containers.

(a) Existing containers that do not qualify for approval under this subpart may be presented for approval under the provisions of subpart B of this part. For such containers, the requirements of subpart B of this part relating to the end and sidewall strength tests do not apply.

Upon showing that the containers have performed satisfactorily in service, the applicant may omit the presentation of drawings and testing, other than the lifting and floor strength test, if permitted by the approval authority.

#### Subpart B—Approval of New Containers

##### § 451.11 Application for approval-general.

(a) An owner of a new container, or a manufacturer acting on behalf of an owner, may apply for approval to any approval authority.

##### § 451.12 Application for approval by design type.

(a) For approval of new containers by design type, each application must include the following:

(1) Engineering drawings and plans showing platform, end framing, welds and hardware, connections of cross-members, top and bottom rails, roof bows, detailed subassemblies of major structural components and attachments, and any other plans and drawings required by the approval authority.

(2) Design and material specifications including type and size of materials. Materials specifications of the safety approval plate must also be given.

(3) The manufacturer's identification number assigned to each container in the type series.

(4) The identification code assigned to each container in the series by the owner, lessee, or bailee responsible for maintenance.

(5) The written assurance from the manufacturer that he will:

(i) Produce to the approval authority such containers as the Administration may wish to examine;

(ii) Advise the approval authority of any change in the design or specification and await its approval before affixing the Safety Approval Plate to the container;

(iii) Affix the Safety Approval Plate to each container in the design type and to no others;

(iv) Keep a record of containers manufactured to the approved design type. This record must at least contain the manufacturer's identification numbers, date of delivery, and names and addresses of customers to whom the containers are delivered;

(v) Supply to the approval authority the information contained in paragraphs (3) and (4) if not available at the time of original application.

(6) A statement as to whether this design type has been examined by any approval authority previously and judged unacceptable. Affirmative statements must be documented with

the name of the approving authority, the reason for nonacceptance, and the nature of modifications made to the design type.

##### § 451.13 Action by approval authority—approval by design type.

(a) The approval authority arranges with the manufacturer, with notification to the owner, to witness the prototype tests required by the convention, and to examine any number of containers that the approval authority considers appropriate. Upon witnessing successful completion of prototype tests and examination of several containers the approval authority issues to the owner, a notice of approval which authorizes the attachment of safety approval plates to the containers. Absence of individual inspections will not relieve the manufacturer of any responsibility to maintain proper quality control. If a prototype container fails to pass the tests, the approval authority may require testing of as many further representative containers as necessary to ensure the adequacy of the design.

##### § 451.14 Alternative approval of new containers by design type.

New containers manufactured before June 16, 1978 without being approved under the preceding section may be approved by submission to an approval authority of an application corresponding to that required under § 451.1(b) for existing containers. All new containers so approved must have safety approval plates affixed and receive their first periodic examination in accordance with the procedures prescribed in § 452.3 not more than five years after their date of manufacture.

##### § 451.15 Application for individual approval.

For approval of new containers by individual approval, each application must include the following:

(a) The manufacturer's identification number.

(2) The identification code of the owner, lessee, or bailee responsible for maintenance of the container.

##### § 451.16 Action by approval authority—individual approval.

The approval authority arranges with the manufacturer or owner to witness testing in accordance with Annex II to the convention. Upon witnessing successful completion of the tests, the approval authority issues to the owner a notice of approval that authorizes the attachment of a safety approval plate.

##### § 451.18 Review of denials of approval.

An applicant aggrieved by a decision of an approval authority may obtain

review of the decision by the Commandant. The decision of the Commandant is final.

#### Subpart C—Safety Approval Plate

##### § 451.21 Safety approval plate required.

(a) The safety approval plate must be supplied by the owner or manufacturer.

##### § 451.23 Plate specifications.

(a) The safety approval plate must be of the size and in the format specified in the appendix to Annex I to the convention.

(b) The safety approval plate must be:

(1) Designed to withstand and remain legible after a 15 minute exposure to a medium intensity fire producing a temperature of 1,000° F (540° C), when mounted on the specified material of construction of the container.

(2) Designed to resist the corrosive effects of its environment, both at sea and ashore, so as to remain legible for the working life of the container.

(3) Designed to have a legible life expectancy equal to or greater than the life expectancy of the container to which the plate is affixed.

##### § 451.25 Required information.

(a) The safety approval number appearing on line 1 of the safety approval plate must be of the form "USA/(approval number, which includes the approval authority identification code)/(year in which approval was granted)."

(b) The date upon which approval was granted must be the same for all containers of a design-type or type-series covered by one notice of approval.

(c) The safety approval number must be the same for all containers of a design-type or type-series covered by one notice of approval.

(d) The owner's International Organization for Standardization (ISO) alpha numeric identification numbers may be used in place of the manufacturer's identification numbers on line 3 of the safety approval plate. If owner's identification numbers are used and the manufacturer's are available, the owner shall keep records correlating the owner's identification numbers are used with the manufacturer's number. If a container marked with owner's identification numbers changes ownership, and the owner's identification number is changed as a result, the new owner must add the new owner's identification number, following the original owner's identification number on line 3 of the safety approval plate.

## PART 452—PERIODIC EXAMINATION OF CONTAINERS

### Sec.

- 452.1 Periodic examination required.  
 452.3 Elements of periodic examinations.  
 452.5 Examinations made in conjunction with other inspections.

Authority: Sec. 4, 91 Stat. 1475, 46 U.S.C. 1503, 49 CFR 1.46(n).

### § 452.1 Periodic examination required.

(a) Each owner of an approved container subject to this part shall examine the container or have it examined in accordance with the procedures prescribed in § 452.3 at intervals of not more than 24 months, except that for containers approved as new containers the interval from the date of manufacture to the date of the first examination must not exceed five years. For containers approved, examined and placed as existing containers before September 6, 1982, the first re-examination must be carried out in accordance with the following schedule:

Date of initial plating	First reexamination
before September 30, 1979	before March 1, 1983
between October 1, 1979 and September 30, 1980	before September 1, 1983
between October 1, 1980 and September 30, 1981	before March 1, 1984
between October 1, 1981 and September 6, 1982	before September 1, 1984

(b) Upon completion of an examination required by this part, the owner shall mark on the safety approval plate, or on the container itself as close as practicable to the safety approval plate, the month and year before which the container must next be examined. The marking may be by a decal, sticker, stencil, or other means so long as it is capable of remaining legible for at least 24 months. Affixing such a marking to a container that has not been examined in accordance with § 452.3 constitutes a misrepresentation in a matter within the jurisdiction of an agency of the United States, and makes the owner punishable under 18 U.S.C. 1001.

(c) The owner of containers subject to this part shall have those containers examined in accordance with the program prescribed in this part regardless of whether the examinations are performed within or outside the United States.

### § 452.3 Elements of periodic examinations.

(a) Periodic examinations required by § 452.1 must conform to the following minimum requirements:

(1) Each examination must include a detailed visual inspection for defects such as cracks, failures, corrosion, missing or deteriorated fasteners, and

any other safety related deficiency or damage which could place any person in danger. Any such deficiencies disclosed by the examination must be corrected by the owner before the container is continued in service.

(2) Each examination must take into account the particular characteristics of various kinds (types) of containers and materials of construction.

(3) Each examination must be performed by qualified personnel, trained and experienced in the detection of container structural damage.

(4) The examinations must be scheduled so as to allow adequate time for thorough performance.

(5) Each examination must apply owner established or industry accepted pass/fail criteria to determine whether a container has any deficiency that must be remedied before the container is returned to service.

(b) Examinations must be documented, and the records retained by the owner, until the next examination is completed and recorded. The records must include in addition to identification of the container, a record of the date of last examination and a means of identifying the examiner. The records must be maintained in an office under the control of the owner and be made available for inspection by the Commandant or his representative upon demand. If the original records are maintained outside the United States, its territories or possessions, supplementary records must be available in written or data processing form to be produced on demand of the Commandant or his representative.

### § 452.5 Examinations made in conjunction with other inspections.

(a) Periodic examinations may be made in conjunction with or as part of routine change-of-custody inspections, or in any other manner convenient to the owner so long as the examinations conform to the requirements of § 452.3.

## PART 453—CONTROL AND ENFORCEMENT

### Sec.

- 453.1 Unsafe and noncomplying containers subject to detention or control.  
 453.3 Detention orders and other orders.  
 453.5 Termination of detention orders and other orders.  
 453.7 Appeal provisions.

Authority: Sec. 4, 91 Stat. 1475, 46 U.S.C. 1503, 49 CFR 1.46(n).

### § 453.1 Unsafe and noncomplying containers subject to detention or control.

(a) Any container used in or offered for movement in international transport which does not have a valid safety approval plate attached to it is subject

to detention or other control by a District Commander or Captain of the Port. However, upon receipt of evidence that a container which does not have a valid safety approval plate attached to it meets the standards of the convention, the District Commander or Captain of the Port may authorize limited movement of such container, under conditions he deems appropriate. This paragraph becomes effective on January 3, 1979, for new containers and on September 6, 1982, for existing containers.

(b) If a District Commander or Captain of the Port finds that a container used in or offered for movement in international transport, even though it has a valid safety approval plate attached to it, is in a condition that creates an obvious risk to safety, he issues a detention order causing the container to be removed from service until it is restored to a safe condition. In addition to removing a container from transport, a detention order may require any special handling, including unloading prior to movement, necessary to ensure safety.

(c) If a District Commander or Captain of the Port finds that a container used or offered for movement in international transport has not been timely examined, the District Commander or Captain of the Port affixes to the container, at a place on the container where it will be readily noticeable to anyone loading or unloading the container, a mark or tag indicating that the container must be examined before being reloaded and again used in international transport. The mark or tag affixed by the District Commander or Captain of the Port indicates the place and the date on which it was affixed, and is capable of remaining legible and in place for at least 12 months. Such mark or tag must not be removed until the container is examined in accordance with § 452.3 of this subchapter. If a District Commander or Captain of the Port finds that container which has been marked or tagged as provided for in this paragraph has been reloaded and used or offered for movement in international transport without having been examined, the District Commander or Captain of the Port issues a detention order causing the container to be removed from service until it is brought into compliance.

### § 453.3 Detention orders and other orders.

(a) The terms of any detention order or other order issued under § 453.1, to the maximum extent practicable, make provisions to avoid loss or damage to cargo.

(b) Written notice of any detention order or other order issued under § 453.1 is given immediately to the terminal operator, stevedore, or other person having actual control over the container involved. Prompt notification is also given to the owner of the container, or his agent. The notification identifies the container involved, its location, and describes the condition which gave rise to the order.

**§ 453.5 Termination of detention orders and other orders.**

(a) When a container, which is the subject of a detention order or other order, is restored to a safe condition or otherwise brought into compliance, it must be examined in accordance with § 452.3 and a new re-examination date marked on the container in accordance with § 452.1(b) of this subchapter.

(b) The owner or the owner's agent shall notify the District Commander or Captain of the Port who issued the order, in writing, that the container has been brought into compliance. Upon giving such notice, the owner, or his agent, may return the container to service.

**§ 453.7 Appeal provisions.**

(a) The owner, his agent, or the custodian of a container subject to a detention order or other order may petition the Commandant to review that order.

(b) The Commandant requires independent surveys to determine the extent of deficiencies, if necessary. Upon completion of his review, including review of the results of any required independent surveys, the Commandant affirms, sets aside, or modifies the order.

(c) The owner of a container is liable for any costs incident to a petition for review including any independent surveys, and for any other costs incident to or resulting from detention or other control of a container.

(d) Unless otherwise determined by the Commandant, a detention order or other order remains in effect pending the outcome of any petition or appeal of that order.

(e) The Commandant acts on all appeals within ten days of receipt.

November 21, 1979.

J. B. Hayes,

Admiral, U.S. Coast Guard, Commandant.

[FR Doc 79-36789 Filed 11-29-79; 8:45 am]

BILLING CODE 4910-14-M

**National Highway Traffic Safety Administration**

**49 CFR Part 571**

[Docket No. 74-14; Notice 16]

**Evaluation Plan for Federal Motor Vehicle Safety Standard No. 208, Occupant Crash Protection; Correction**

**AGENCY:** National Highway Traffic Safety Administration (NHTSA).

**ACTION:** Correction of notice.

**SUMMARY:** On October 22, 1979, the NHTSA published in the Federal Register an announcement of its publication of an Evaluation Plan for Federal Motor Vehicle Safety Standard No. 208, *Occupant Crash Protection* (44 FR 60771). That notice invited public comment on the plan, but did not specify a comment closing date. This notice specifies a comment closing date of February 29, 1980. The agency wishes to emphasize that, in establishing this date, it does not intend to preclude subsequent comment on the actual implementation of the plan during the 1980-86 evaluation period.

**DATE:** Closing date for general comments on the NHTSA 208 Evaluation Plan: February 29, 1980.

**FOR FURTHER INFORMATION CONTACT:**

Mr. Frank G. Ephraim, Room 5212, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, D.C. 20590 (202-426-1574).

(Secs. 103, 119, Pub. L. 89-563, 80 Stat. 718 (15 U.S.C. 1392, 1407); delegations of authority at 49 CFR 1.50 and 501.8)

Issued on November 21, 1979.

Michael M. Finkelstein,

Associate Administrator for Rulemaking.

[FR Doc. 79-36784 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-59-M

**DEPARTMENT OF COMMERCE**

**National Oceanic and Atmospheric Administration**

**50 CFR Part 662**

**Pacific Fishery Management Council, Hearings on an Amendment to the Fishery Management Plan on Northern Anchovy; Public Hearings**

**AGENCY:** National Oceanic and Atmospheric Administration, Commerce.

**ACTION:** Notice of Public Hearings.

**SUMMARY:** The Pacific Fishery Management Council is considering alternative amendments to the provisions concerning allocation of the

reduction fishery quotas contained in the Fishery Management Plan (FMP) for the Northern Anchovy Fishery. This document announces that the Council will hold public hearings to receive input on the alternatives under consideration.

**DATES:** Comments: The Pacific Council is soliciting public comments on the alternatives under consideration and will accept oral or written statements at the hearings specified below. Interested persons may also submit written comments directly to the Council until January 9, 1980.

Public hearings:

December 14, 1979—Monterey, Calif.  
December 15, 1979—Long Beach, Calif.  
January 8, 1980—San Diego, Calif.

**ADDRESS:** send comments and/or requests for copies of the alternative amendments to Pacific Fishery Management Council, 526 S.W. Mill Street, Portland, Oregon 97201. Hearing locations: The first public hearing on alternative anchovy FMP amendments will be held in conjunction with a hearing on draft FMP's for groundfish and jack mackerel. This public hearing will begin at 7:30 p.m. on December 14, 1979, in the Ferrante Room, 1 Portola Plaza, Monterey, California.

The second hearing will be held, also in conjunction with a groundfish/jack mackerel hearing, at 2:00 p.m. on December 15, 1979, at California State University at Long Beach, 1212 Bellflower, Long Beach, California.

The third public hearing will be held at 7:30 p.m. on January 8, 1980, at the Bahia Hotel, 998 W. Mission Bay Drive, San Diego, California.

**FOR FURTHER INFORMATION CONTACT:** Mr. Lorry Nakatsu, Executive Director, Pacific Fishery Management Council, 526 SW. Mill Street, Second Floor, Portland, Oregon 97201. Telephone: (503) 221-6352.

**SUPPLEMENTARY INFORMATION:** The Pacific Fishery Management Council is considering alternative amendments to the provisions concerning allocation of the reduction fishery quotas contained in the Fishery Management Plan (FMP) for the Northern Anchovy Fishery. The FMP currently provides that 10% of the total reduction fishery quota, or 10,000 tons, whichever is less, shall be reserved for the northern area fishery. Alternative amendments to the FMP under Council consideration would provide a mechanism whereby that reserve could be modified during the fishery season in the event the northern area fishery was not harvesting or was not likely to harvest the entire reserve by the end of the season. Under the amendments, all or part of the reserve could be made

available to vessels fishing in both the northern and southern management areas covered by the FMP.

The Pacific Council is soliciting public comments on the alternatives under consideration and will accept oral or written statements at the hearings specified above. Interested persons also may submit written comments directly to the Council at 526 SW Mill St., Portland, OR 97201, telephone (503) 221-6352, until January 9, 1980. Copies of the alternative amendments may be obtained from the Council at the above address.

Dated: November 23, 1979.  
Winfred H. Meibohm,  
Executive Director, National Marine Fisheries Service.

[FR Doc. 79-36785 Filed 11-28-79; 8:45 am]  
BILLING CODE 3510-22-M

...the Council is soliciting public comments on the alternatives under consideration and will accept oral or written statements at the hearings specified above. Interested persons also may submit written comments directly to the Council at 526 SW Mill St., Portland, OR 97201, telephone (503) 221-6352, until January 9, 1980. Copies of the alternative amendments may be obtained from the Council at the above address.

...the Council is soliciting public comments on the alternatives under consideration and will accept oral or written statements at the hearings specified above. Interested persons also may submit written comments directly to the Council at 526 SW Mill St., Portland, OR 97201, telephone (503) 221-6352, until January 9, 1980. Copies of the alternative amendments may be obtained from the Council at the above address.

# Notices

Federal Register

Vol. 44, No. 231

Thursday, November 29, 1979

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

## DEPARTMENT OF AGRICULTURE

### Forest Service

[Nez Perce (NEE-ME-POO)]

#### National Historical Trail; Northern Region; Intent To Prepare an Environmental Impact Statement

Pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969, the Forest Service, Department of Agriculture, will prepare an environmental impact statement for development of the proposed Nez Perce (Nee-Me-Poo) National Historical Trail.

A Washington Office communique of March 23, 1977 (2350), established lead Regions to participate in the studies of trails named in the Act of October 17, 1976 (Pub. L. 94-527, 70 Stat. 2481). The Act amends Section 5(c) of the National Trails System Act, October 2, 1968 (Pub. L. 90-543, 82 Stat. 919), by naming eight additional study trails. The Nez Perce Trail was one of the eight named.

The study report recommends Federal legislation to designate the 1,170-mile Nez Perce (Nee-Me-Poo) Trail as a component of the National Trails System and provide for trail development to accommodate increased recreation use on nine components which have been considered high potential route segments. The report also includes recommendations for administration, acquisition, preservation, marking, access, and historic interpretation.

The criteria basic to the evaluation of the Nez Perce Trail characteristics are described in Public Law 95-625, November 10, 1978, Section 551, paragraph 12, number (11) (A) (B) and (C).

A scoping session has been held. The concerns and issues from public involvement will be used to develop alternatives.

The alternatives will range from no Federal action, to identification of the

entire 1,170-mile route only, to construction of a walking/horse trail the entire 1,170-mile route. An alternative somewhere between marking the route only and construction of 1,170 miles of trail would seem to be feasible.

Tom Coston, Regional Forester, is the responsible official, and William A. Worf, Director of Recreation and Lands, will be team leader.

The draft environmental statement is scheduled for completion by January 1, 1980, with a 60-day review period, and the final environmental statement is scheduled for filing on April 1, 1980.

Comments on the notice of intent or on the Nez Perce (Nee-Me-Poo) National Historic Trail proposal should be sent to Tom Coston, Regional Forester, Northern Region, Federal Building, Missoula, Montana 59807.

James E Reid,

Acting Regional Forester, Forest Service,  
Northern Region.

November 21, 1979.

[FR Doc. 79-36666 Filed 11-28-79; 8:45 am]

BILLING CODE 3410-11-M

## CIVIL AERONAUTICS BOARD

[Order 79-11-90]

### Certificated Passenger Service Between United States and Certain Countries in South America

#### Correction

In FR Doc. 79-35819, published at page 66646, on Tuesday, November 20, 1979, the Order No. in the heading was printed to read "[Order 79-11-80]" and should be corrected to read as in the heading above.

BILLING CODE 1505-01-M

## DEPARTMENT OF COMMERCE

### Industry and Trade Administration

#### Computer Systems Technical Advisory Committee; Partially Closed Meeting

Pursuant to section 10(a)(2) of the Federal Advisory Committee Act, as amended, 5 U.S.C. App. (1976), notice is hereby given that a meeting of the Computer Systems Technical Advisory Committee will be held on Wednesday, December 19, 1979, at 9:30 a.m. in Room 3708, Main Commerce Building, 14th Street and Constitution Avenue NW., Washington, D.C.

The Computer Systems Technical Advisory Committee was initially established on January 3, 1973. On December 20, 1974, January 13, 1977, and August 28, 1978, the Assistant Secretary for Administration approved the recharter and extension of the Committee, pursuant to section 5(c)(1) of the Export Administration Act of 1969, as amended, 50 U.S.C. App. Sec. 2404(c)(1), and the Federal Advisory Committee Act.

The Committee advises the Office of Export Administration with respect to questions involving (A) technical matters, (B) worldwide availability and actual utilization of production technology, (C) licensing procedures which affect the level of export controls applicable to computer systems, including technical data or other information related thereto, and (D) exports of the aforementioned commodities and technical data subject to multilateral controls in which the United States participates, including proposed revisions of any such multilateral controls.

The Committee meeting agenda has four parts:

#### General Session

(1) Opening remarks by the Acting Chairman.

(2) Presentation of papers or comments by the public.

(3) Report on the current work program of the Subcommittees:

- (a) Technology Transfer;
- (b) Foreign Availability;
- (c) Hardware; and
- (d) Licensing Procedures.

#### Executive Session

(4) Discussion of matters properly classified under Executive Order 11652 and 12065, dealing with the U.S. and COCOM control program and strategic criteria related thereto.

The General Session of the meeting will be open to the public; a limited number of seats will be available. To the extent time permits, members of the public may present oral statements to the Committee. Written statements may be submitted at any time before or after the meeting.

With respect to agenda item (4), the Assistant Secretary for Administration, with the concurrence of the delegate of the General Counsel, formally determined on September 6, 1978, pursuant to section 10(d) of the Federal

Advisory Committee Act, as amended by section 5(c) of the Government In The Sunshine Act, Pub. L. 94-409, that the matters to be discussed in the Executive Session should be exempt from the provisions of the Federal Advisory Committee Act relating to open meetings and public participation therein, because the Executive Session will be concerned with matters listed in 5 U.S.C. 552b(c)(1). Such matters are specifically authorized under criteria established by an Executive Order to be kept secret in the interests of the national defense or foreign policy. All materials to be reviewed and discussed by the Committee during the Executive Session of the meeting have been properly classified under Executive Order 11652 or 12065. All Committee members have appropriate security clearances.

The complete Notice of Determination to close meetings or portions thereof of the series of meetings of the Computer Systems Technical Advisory Committee and of any Subcommittees thereof, was published in the *Federal Register* on September 14, 1978 (43 FR 41073).

Copies of the minutes of the open portions of the meeting will be available by calling Mrs. Margaret Cornejo, Policy Planning Division, Office of Export Administration, U.S. Department of Commerce, Washington, D.C. 20230, telephone: 202-377-2583.

For further information contact Mrs. Cornejo either in writing or by phone at the address or number shown above.

Dated: November 26, 1979.

Kent N. Knowles,

*Director, Office of Export Administration,  
Bureau of Trade Regulation, Department of  
Commerce.*

[FR Doc. 79-36708 Filed 11-28-79; 8:45 am]

BILLING CODE 3510-25-M

### National Oceanic and Atmospheric Administration (NOAA)

#### Notification of Intent to Prepare an Environmental Impact Statement

**AGENCY:** Office of Coastal Zone Management (OCZM), National Oceanic and Atmospheric Administration, Department of Commerce.

**ACTION:** Notice.

**SUMMARY:** The Office of Coastal Zone Management (OCZM), National Oceanic and Atmospheric Administration (NOAA), intends to prepare a draft environmental impact statement (DEIS) on a proposed estuarine sanctuary at Padilla Bay, Skagit County, Washington in accordance with the rules and regulations for the acquisition and

management of estuarine sanctuaries (15 FR 45522-45523, September 9, 1979).

The estuarine sanctuary proposal is currently being developed in consultation with local government, State and Federal agencies and affected interest groups. The proposed action is to acquire and manage one of the largest and most important estuarine areas in the Pacific Northwest. The sanctuary will be acquired and managed by the State of Washington with 50% matching funds provided by NOAA/OCZM.

The DEIS will be prepared in compliance with the CEQ regulations (43 FR 55978-56007, November 29, 1978). Interested parties who wish to submit suggestions, comments, or substantive information concerning the scope or content of this draft environmental impact statement should do so prior to December 28, 1979. Comments may be submitted in writing or by telephone to: Mr. James W. MacFarland, Estuarine Sanctuary Program Manager, Office of Coastal Zone Management, 3300 Whitehaven Street NW., Washington, D.C. 20235, Telephone: (202) 634-4236.

Francis J. Balint,

*Acting Director, Office of Management and  
Computer Systems.*

[FR Doc. 79-36699 Filed 11-28-79; 8:45 am]

BILLING CODE 3510-08-M

### COMMITTEE FOR THE IMPLEMENTATION OF TEXTILE AGREEMENTS

#### Announcing a New Export Visa and Exempt Certification System for Cotton, Wool and Man-Made Fiber Textile Products from India

November 26, 1979.

**AGENCY:** Committee for the Implementation of Textile Agreements.

**ACTION:** Establishing a new visa and exempt certification system for cotton, wool and man-made fiber textile products exported from India.

**SUMMARY:** On June 20, 1979, the Governments of the United States and India exchanged letters concerning a new visa and certification system, established as an administrative arrangement under the terms of the Bilateral Cotton, Wool and Man-Made Fiber Textile Agreement of December 30, 1977, as amended, between the two governments.

**EFFECTIVE DATE:** January 7, 1980 for textile and apparel products exported on and after that date. Textile and apparel products that have been exported before January 1, 1980 and which have been visaed or certified in accordance with

the previous administrative arrangement shall not be denied entry.

**FOR FURTHER INFORMATION CONTACT:** Judith L. McConahy, International Trade Specialist, Office of Textiles, U.S. Department of Commerce 20230 (202/377-5423).

**SUPPLEMENTARY INFORMATION:** After the effective date of this action, shipments of cotton, wool and man-made fiber textile products from India that are covered by the bilateral agreement shall be visaed or certified in accordance with the procedures outlined below, in order to be entered or withdrawn from warehouse for consumption in the United States.

Merchandise not covered separately in the following paragraphs shall be visaed. The visa will be an original circular stamped marking in blue ink on the front of the invoice (Special Customs Invoice Form 5515, successor document, or commercial invoice when such form is used) and will include its number, the date, signature and title of the issuing official, and will show the correct categories and quantities in the shipment in the applicable category units.

Shipments of apparel products made from handloomed fabrics of the cottage industry of India, not wholly by hand, shall be certified prior to exportation from India. The certification will be an original elephant-shaped stamped marking in blue ink on the front of the invoice (Special Customs Invoice Form 5515, successor document, or commercial invoice, when such form is used) and will include its number, the date, signature and title of the issuing official, and will show the correct categories and quantities in the shipment in the applicable category units.

Entry will not be denied in instances in which the quantity indicated on the visa or the elephant certification is more than the actual quantity of the shipment. However, invoices for merchandise covered by the elephant certification shall include only merchandise meeting the definitions set forth in the preceding paragraph.

Shipments of handloom fabric, handmade handloom made-up articles, India Items listed in the enclosure (which may be amended) accompanying the following letter to the Commissioner of Customs, and commercial shipments valued at \$250 or less, shall be certified prior to exportation from India. The certification will be an original rectangular-shaped stamped marking in blue ink on the front of the invoice (Special Customs Invoice Form 5515, successor document, or commercial

invoice when such form is used) and will state the basis for exemption by use of the description "Handloomed fabric," "Handmade, handloomed made-up articles," "\$250 or less," or the name of the particular India Item. Invoices for merchandise covered by the exempt certifications shall not include any merchandise not covered by this paragraph.

Floor coverings classified in T.S.U.S.A. numbers 360.0500, 360.1000, 360.1500, 360.7600, 360.7800, 361.4200, 361.4400, and 361.5420 and merchandise for the personal use of the importer, not for resale, do not require a visa or certification and will not be charged to the levels of the bilateral agreement.

Facsimiles of the visa and certification stamps are published as enclosures to the letter to the Commissioner of Customs which follows this notice.

The Government of India has authorized the following officials to issue visas and certifications:

B. W. Adkar, P. Balasubramanian, Anil Bakshi, H. B. Dalal, G. D. Deshpande, B. G. Dheerendra, M. G. Geevarghese, D. K. Gupta, Mrs. I. R. Menon, K. R. Menon, D. K. Nair, M. K. Panthaki, M. C. Sarkar, V. K. Saxena, B. G. Shah, M. N. Shanker, S. Srinivasan, K. S. Sundaresan, K. V. Upadhyaya, and S. S. Vijayaraj.

Interested persons are advised to take all necessary steps to insure that textile products, produced or manufactured in India, which are to be entered into the United States for consumption, or withdrawn from warehouse for consumption, will meet the stated visa and certification requirements.

Paul T. O'Day,

*Acting Chairman, Committee for the Implementation of Textile Agreements.*

#### Committee for the Implementation of Textile Agreements

November 28, 1979.

Commissioner of Customs, *Department of the Treasury, Washington, D.C.*

Dear Mr. Commissioner: This directive cancels and supersedes the directive of May 13, 1975, as amended, issued to you by the Chairman of the Committee for the Implementation of Textile Agreements, which directed you to prohibit entry for consumption or withdrawal from warehouse for consumption of certain cotton, wool and man-made fiber textile products for which the Government of India had not issued an appropriate export visa, elephant-shaped certification, or exempt certification.

Under the terms of the Arrangement Regarding International Trade in Textiles done at Geneva on December 20, 1973, as extended on December 15, 1977; pursuant to the Bilateral Cotton, Wool and Man-Made Fiber Textile Agreements of December 30, 1977 as amended, between the Governments

of the United States and India; and in accordance with the provisions of Executive Order 11651 of March 3, 1972, as amended by Executive Order 11951 of January 6, 1977, you are directed, effective on January 7, 1980, and until further notice, to prohibit entry into the United States for consumption or withdrawal from warehouse for consumption of cotton, wool and man-made fiber textile and apparel products, in Categories 300-369, 400-469 and 600-669, produced or manufactured in India and exported on or after January 1, 1980 which are not visaed or certified in accordance with the procedures outlined below. Merchandise exported before January 1, 1980, which has been visaed or certified in accordance with previously established procedures shall not be denied entry.

Merchandise not covered separately in the following paragraphs shall be visaed. The visa will be an original circular stamped marking in blue ink on the front of the invoice (Special Customs Invoice Form 5515, successor document, or commercial invoice when such form is used) and will include its number, the date, signature and title of the issuing official and will show the correct categories and quantities in the shipment in the applicable category units.

Apparel products in Categories 330-359, 431-459 and 630-659 made from handloomed fabrics of the cottage industry of India, not wholly by hand, shall be certified prior to exportation from India. The certification will be an original elephant-shaped stamped marking in blue ink on the front of the invoice (Special Customs Invoice Form 5515, successor document, or commercial invoice, when such form is used) and will include its number, the date, signature and title of the issuing official, and will show the correct categories and quantities in the shipment in the applicable category units, except, if the quantity indicated on the elephant-shaped certification or the visa is more than that of the shipment, entry shall be permitted. Otherwise, the categories and quantities shall be those determined by the U.S. Customs Service or the shipment shall be denied entry.

Handloom fabric, hand-made handloom made-up articles, India Items listed in the enclosure, and commercial shipments valued at \$250 or less, shall be certified prior to exportation from India. The certification will be an original rectangular-shaped stamped marking in blue ink on the front of the invoice (Special Customs Invoice Form 5515, successor document, or commercial invoice when such form is used) and will state the basis for exemption by use of the description "Handloomed fabric", "Handmade handloom made-up articles", "\$250 or less", or the name of the particular India Item. The list of India Items which may be amended in the future is enclosed.

Facsimiles of the visa and certification stamps are also enclosed.

Merchandise classified in T.S.U.S.A. numbers 360.0500, 360.1000, 360.1500, 360.7600, 360.7800, 361.4200, 361.4400 and 361.5420 do not require a visa or certification and shall not be charged to the levels of the bilateral agreement.

All merchandise covered by an invoice which has an exempt certification but includes merchandise other than that defined

as subject to the exempt certification will be denied entry. Entry shall also be denied for merchandise covered by an invoice which has an elephant certification but includes merchandise other than that defined as subject to the elephant certification.

You are directed to permit entry into the United States for consumption and withdrawal from warehouse for consumption of designated shipments of textile products, produced or manufactured in India and exported to the United States, notwithstanding the designated shipment or shipments do not fulfill the aforementioned visa and certification requirements, whenever requested to do so in writing by the Chairman of the Committee for the Implementation of Textile Agreements.

A detailed description of the textile categories in terms of T.S.U.S.A. numbers was published in the Federal Register on January 4, 1978 (43 FR 884), as amended on January 25, 1978 (43 FR 3421), March 3, 1978 (43 FR 8828), June 22, 1978 (43 FR 26773), September 5, 1978 (43 FR 39408), January 2, 1979 (44 FR 94), March 22, 1979 (44 FR 17545), and April 12, 1979 (44 FR 21832).

In carrying out the above directions, entry into the United States for consumption shall be construed to include entry for consumption into the Commonwealth of Puerto Rico.

The actions taken with respect to the Government of India and with respect to imports of textile products from India have been determined by the Committee for the Implementation of Textile Agreements to involve foreign affairs functions of the United States. Therefore, the directions to the Commissioner of Customs, which are necessary for the implementation of such actions, fall within the foreign affairs exception to the rule-making provisions of 5 U.S.C. 553. This letter will be published in the Federal Register.

Sincerely,

Paul T. O'Day,

*Acting Chairman, Committee for the Implementation of Textile Agreements.*

Enclosures.

#### India Items

1. Kurtha: A loose fitting tunic, almost straight, in short, medium and long sizes. Some typical examples of Kurtha are: Kathiawar mirrored Kurtha, wooden beaded Delhi Kurtha, Delhi embroidered Kurtha, Bandini Kurtha, Lucknow chikan Kurtha, Madras short Kurtha, Sanganer printed Kurtha, Phulkari Kurtha, etc.

2. Churidar Pyjama or Churidar Set: A pair of trousers, loose at waist, with either draw string or hooks and tapering to a tight fit at ankle. It is traditionally a Moghul costume worn by Indian women since the 16th century along with a Kurtha and Dupatta (an oblong scarf).

3. Jawahar Jacket: A loose fitting waist coat, with or without buttons, traditionally worn over Kurthas or Kameez by men and women.

4. Pherron: A full length dress loose and longer than the Kurtha with long loose sleeves worn originally by Kashmiris. Intricate embroidery depicting floral designs is done around the neck of this costume.

5. Angharkha: A traditional dress of Moghul times, open down the front with decorative string or ribbon used to tie at the sides or center. (This also includes Angharkha or ribbed cotton worn in Rajasthan).

6. Bagal Bendini: A garment similar to Angharkha, short or long, with a wrap-around effect and tied at the sides.

7. Ghgras/Lahagas: Long, wide skirt with draw strings or hooks. A garment usually reaching to or below ankles.

8. Pavada: A long wide shirt similar to Ghgras, often in two-piece ensemble, as an accessory worn with Saree or Dupatta.

9. Choli: A short blouse worn on festive occasions by the tribal people of Kuch and Rajasthan.

10. Lungi or Lungi Set: A long garment worn as a wrap around the lower half of the body, with or without a Kurtha, or a loose fit blouse or a Choli.

11. Salwar/Gararri: Loose fit trousers, legs may be straight or baggy at the thighs. This also includes Gararra which is a straight trouser up to the knee, and below the knee shaped like a Ghagra, with frills etc.

12. Dupatta: A scarf usually about 4 ft. long, wrapped by women along with Kurtha and Churidar. This also includes other types of scarves worn in varied sizes, the characteristics being the same as above.

13. Ohdhani: An oblong cloth about 6 to 7 ft. long and 3 to 4 ft. wide with overall embroidery or a woven jacquard weave with traditional designs like himroo shawl or made-up of a fabric decorated with cotton/silk/zari or any other fibre yarn used to cover the body.

14. Chola: An ankle length, loose fit, long Kurtha traditionally worn by religious priests.

15. Safa: Headwear made up of printed or embroidered fabrics.

16. Aba: An over garment close fit at the upper part with a Ghagra type skirt touching the ankles.

17. Durka: Over garment worn by Muslim women which covers the head extends to the ankles.

18. Jama: A long Kurtha traditionally worn by a special class of people.

19. Patka: A long traditional stole with Indian designs ornamented with art work of various types.

20. Tamba/Tambi: Loose fit trousers usually worn in North India.

21. Thailis: Totobags, purses, pouch bags and similar accessories to traditionally Indian dresses.

22. Toran: A long embroidered strip of cloth elegantly embroidered with plain or applique work embroidery, used for decorating the entrance doors of Indian residences. This represents a wide variety of fine embroidered pieces connected with folk art, particularly from Kathiawar in Gujarat (West Coast of India).

23. Phulkari: Decorative, embroidered, roughspun cotton fabric with close darning stitch employed with strands of untwisted silk to make the flower-like embroidery.

24. Thombai: Cylindrical hanging with hand-made applique work of hand-printed/hand-painted/hand-embroidered fabrics. These are traditionally used in South Indian temples as decorative hangings from ceilings or in doorways for gala affairs.

25. Puri Chatta: Flat, highly decorative umbrella with applique work.

26. Gabba: Embroidered floor covering using waste rags. Usually embroidered or made in applique work on old woolen blanket or jute base with cotton backing peculiar to Kashmir region.

27. Shamiana: Canopy or awning used as ceiling decoration.

28. Kalamkari: Hand painted/printed with wax resist wall pieces depicting mythological characters.

29. Chakla: Wall hangings with folk embroidery, with or without mirror work, framed and unframed. The stitches are interspersed and interplaced.

30. Batik wall pieces: Wall hangings made of cotton fabrics hand painted with batik technique. The designs are usually mythological narrations.

31. Chahdani Posh: A protective covering used normally in rural areas to keep tea or coffee pots warm.

32. Takiya Gilaf: A cushion cover in oblong, square, round or other shape using indigenous materials and motifs.

33. Ghandni/Gaddiposh: A decorative floor covering, also used sometimes as cover on wooden Takhat (sort of Divan).

34. Temple Hangings: Made of hand woven, hand-painted/printed traditional textiles with Indian motifs.

35. Gulubahdk: Traditionally decorative piece of cloth worn around the neck, with Indian traditional art work.

36. Kamarbandh: Traditional decorative item worn around the waist.

37. Mathapatti: A decorative piece used to decorate the forehead in varying lengths and widths.

38. Bazuband: A decorative piece worn around the arm.

[FR Doc. 79-36762 Filed 11-28-79; 8:45 am]

BILLING CODE 3510-25-M

**GOVERNMENT OF INDIA**  
**TEXTILE VISA**

CATEGORY	QUANTITY
_____	_____
_____	_____
_____	_____

GRI No.....

SIGNATURE.....

TITLE .....

No.....DATED.....

**GOVERNMENT OF INDIA**  
**EXEMPT CERTIFICATE**  
**DESCRIPTION**

\_\_\_\_\_

GRI No.....

SIGNATURE.....

TITLE.....

No.....DATED.....

**GOVERNMENT OF INDIA**  
**CERTIFIED PRODUCTS OF**  
**HANDLOOM FABRICS**

CATEGORY	QUANTITY
_____	_____
_____	_____
_____	_____

G. R. I. No.....

SIGNATURE.....

TITLE.....

NO.....DATED.....

## DEPARTMENT OF ENERGY

## Economic Regulatory Administration

[Docket No. ERA-FC-79-008; OFC Cases Nos. 61009-9071-01-77, 61009-9071-02-77, and 61009-9071-03-77]

## American Hoechst Corp.; Request for Classification

**AGENCY:** Economic Regulatory Administration, Department of Energy.

**ACTION:** Notice of Request for Classification.

**SUMMARY:** On August 23, 1979, the American Hoechst Corporation (Hoechst) requested the Economic Regulatory Administration (ERA) of the Department of Energy (DOE) classify as existing three boilers being constructed at its Bayport, Texas, facility. The units are eligible to request classification as existing facilities pursuant to § 515.13 of the Revised Interim Rule to Permit Classification of Certain Powerplants and Installations as Existing Facilities issued by ERA on March 15, 1979, (44 FR 17464, March 21, 1979) and pursuant to the provisions of the Powerplant and Industrial Fuel Use Act of 1978 (Pub. L. 95-620) (FUA). The Final Rule for transitional facilities were printed in the *Federal Register* on October 19, 1979, (44 FR 60690). The Final Rule becomes effective November 30, 1979.

FUA, which was effective May 8, 1979, imposes statutory prohibitions against the use of petroleum or natural gas by new major fuel burning installations (MFBI). The statutory prohibitions that apply to new MFBI's are different from those which apply to MFBI's that are classified as existing. ERA's decision in this matter is whether these boilers are new or existing MFBI's. The purpose of this notice is to invite interested persons to submit written comments on this matter prior to the issuance of a final decision by ERA. In accordance with § 515.26 of the Revised Interim Rule, no public hearings will be held.

**DATES:** Written comments are due on or before December 26, 1979.

**ADDRESSES:** Ten copies of written comments shall be submitted to: Department of Energy, Case Control Unit, Box 4629, Room 2313, 2000 M Street, NW, Washington, DC 20461.

Docket No. ERA-FC-008 should appear on the envelope and the document therein.

**FOR FURTHER INFORMATION CONTACT:**

Constance L. Buckley, Chief New MFBI Branch, Office of Fuels Conversion, Department of Energy, 2000 M Street, NW,

Room 3128, Washington, DC 20461, (Phone (202) 254-7814).

William L. Webb, Office of Public Information, Economic Regulatory Administration, Department of Energy, 2000 M Street, NW, Room B-110, Washington, DC 20461, (Phone (202) 634-2170).

Robert L. Davies, Acting Assistant Administrator for Fuels Conversion, Department of Energy, 2000 M Street, NW, Room 3128-L, Washington, DC 20461, (Phone (202) 634-6557).

G. Randolph Comstock, Acting Assistant General Counsel for Coal Regulation, 1000 Independence Avenue, SW, Room 6G-087, Washington, DC 20585, (Phone (202) 252-2967).

**SUPPLEMENTARY INFORMATION:** The American Hoechst Corporation's Bayport facility is located in Pasadena, Texas. The facility, when complete, will produce styrene monomer and high density polyethylene (HDPE). The plant is to be supported by the three package boilers for which this transitional filing was made. The boilers were ordered April 18, 1978. Each of the boilers is a 195 million Btu/hour (150,000 lb/steam/hr) Babcox and Wilcox package unit designed to burn primarily waste liquids and gases generated from the styrene and HDPE processes. Fuel oil or natural gas will be mixed with these waste products in an amount that will not exceed 25 percent of the annual Btu input to the boilers. The plant is scheduled to begin testing and startup on or about January 1, 1980.

In accordance with the provisions of § 515.13 of the Interim Rule, ERA will classify an eligible installation as existing if it is demonstrated to the satisfaction of ERA that the cancellation, rescheduling, or modification of the construction or acquisition of the installation to comply with the prohibitions of Title II of FUA would result in a substantial financial penalty or a significant operational detriment. The existing or new facility classification for these facilities will be made on the basis of the Interim Rule unless the Final Rule would result in a more favorable disposition.

Hoechst supported its request for classification by providing evidence in support of its claim that it would suffer a substantial financial penalty if the units were not classified as existing units and allowed to burn oil and natural gas in combination with the facilities waste products. The Interim Rule provides that the ERA can classify a transitional facility as existing if a company can show that at least 25 percent of the total projected costs of the project had been expended as of November 9, 1978. In computing the 25 percent expenditures,

the ERA includes only nonrecoverable outlays.

Hoechst certified that on November 9, 1978, that 81 percent of the project dollars for these three 195 MM Btu/hr boilers had been expended. Documents appended to the request for classification, and submitted as confidential, from Hoechst-retained contractors and the properly certified forms ERA 300B, identify those dollar figures that ERA will verify and analyze. Also attached were copies of bills of lading for delivery to the site of the pre-fabricated boilers, all of which were received at the site in March and April 1979.

ERA hereby invites all interested persons to submit written comments on this matter. The public file, containing documents on these proceedings and supporting material is available for inspection upon request at: Economic Regulatory Administration, 2000 M Street, NW., Room B-110, Washington, D.C., Monday-Friday, 8:00 a.m.-4:30 p.m.

Issued in Washington, D.C. on November 23, 1979.

Robert L. Davies,

Acting Assistant Administrator, Office of Fuels Conversion, Economic Regulatory Administration.

[FR Doc. 79-36715 Filed 11-29-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. ERA-FC-79-004; ERA Cases Nos. 68001-9068-09-77, 68001-9068-10-77, 68001-9068-13-77, 68001-9068-14-77, 68001-9068-18-77, and 68001-9068-21-77]

## Wabash Power Equipment Co.; Request for Classification

**AGENCY:** Economic Regulatory Administration, Department of Energy.

**ACTION:** Notice of Request for Classification.

**SUMMARY:** On June 6, 1979, Wabash Power Equipment Company (Wabash) requested that the Economic Regulatory Administration (ERA) of the Department of Energy (DOE) classify as existing six package boilers, designed to fire oil and/or gas. The units were designed and constructed to be used as rental boilers. Wabash is eligible to request classification of the units as existing facilities pursuant to § 515.10 of the Revised Interim Rule to Permit Classification of Certain Powerplants and Installations as Existing Facilities issued by ERA on March 15, 1979 (44 FR 17464, March 21, 1979), and pursuant to the provisions of the Powerplant and Industrial Fuel Use Act of 1978 (42 U.S.C. 8301 *et seq.*) (FUA). FUA, which became effective May 8, 1979, imposes statutory prohibitions against the use of

petroleum and natural gas by new major fuel burning installations (MFBI). The statutory prohibitions that apply to new MFBI do not apply to MFBI that are classified as existing. The purpose of this notice is to invite interested persons to submit written comments on this matter prior to the issuance of a final decision by ERA. In accordance with § 515.26 of the Revised Interim Rule, no public hearing will be held.

**DATES:** Written comments are due on or before December 26, 1979.

**ADDRESSES:** Ten (10) copies of written comments shall be submitted to: Department of Energy, Case Control Unit, Box 4629, Room 2313, 2000 M Street, NW., Washington, D.C. 20461.

Docket No. ERA-FC-79-004 should appear on the envelope and the document therein.

**FOR FURTHER INFORMATION CONTACT:**

Constance L. Buckley, Chief, New MFBI Branch, Office of Fuels Conversion, Department of Energy, 2000 M Street, NW., Room 3128, Washington, D.C. 20461, Phone (202) 254-7814.

William L. Webb, Office of Public Information, Economic Regulatory Administration, Department of Energy, 2000 M Street, NW., Room B-110, Washington, D.C. 20461, Phone (202) 634-2170.

Robert L. Davies, Acting Assistant Administrator for Fuels Conversion, Department of Energy, 2000 M Street, NW., Room 3128-L, Washington, D.C. 20461, Phone (202) 634-6557.

G. Randolph Comstock, Acting Assistant General Counsel for Coal Regulation, 1000 Independence Avenue, SW., Room 6G-087, Washington, D.C. 20585, Phone (202) 252-2967.

**SUPPLEMENTARY INFORMATION:** Wabash Power Equipment Company (Wabash) of Wheeling, Illinois (a corporation which is incorporated under the laws of the State of Illinois) stocks boilers for sale and rental to utilities, and to the chemical, pulp and paper, petrochemical, food processing, primary metal, petroleum, and automotive industries. Wabash purchases these boilers and related equipment from various boiler manufacturers and other vendors. The delivery of this equipment ranges from approximately six months to over a year. Wabash's essential function is stocking boilers and related equipment to provide instant availability to their customers.

Upon completion of the fabrication of Wabash's boilers by the manufacturer, the manufacturer stores the unit in its own yard until Wabash actually rents or sells the unit. At that time the unit is shipped to the user from the manufacturer's storage yard.

Wabash requests an existing facility classification for the following units which have not at this time been sold or leased by the company:

ERA case No.	Capacity MM Btu/hr	Wabash unit No.	Date ordered	Date ready for operation
68001-9068-09-77	192	25507	Oct. 31, 1978	Oct. 30, 1978.
69001-9068-10-77	151	502	Jan. 5, 1978	Mar. 21, 1978.
68001-9068-13-77	117	522	Jan. 19, 1978	June 20, 1978.
68001-9068-14-77	117	523	Jan. 19, 1978	June 14, 1978.
68001-9068-18-77	192	22505	Oct. 18, 1979	Oct. 30, 1978.
68001-9068-21-77	189	78222	Oct. 31, 1978	Sept. 14, 1979.

These six units are eligible for classification as "existing" under the criteria set forth in Section 515.10 of the Revised Interim Rule because contracts for their construction or acquisition were signed prior to November 9, 1978.

In accordance with the provisions of Section 515.13 of the Revised Interim Rule, ERA will classify an eligible installation as existing if it is demonstrated to the satisfaction of ERA that the cancellation, rescheduling, or modification of the construction or acquisition of the installation would result in a substantial financial penalty or a significant operational detriment.

Wabash supported its request for classification by providing evidence in support of its claim that it would suffer

substantial financial penalty if the units were not classified as existing units and allowed to burn natural gas or petroleum. Section 515.13 of the Revised Interim Rule provides that ERA will classify a transitional facility as existing if a company can show that at least 25 percent of the total projected cost of the project had been expended as of November 9, 1978. In computing the 25 percent expenditures, the ERA will include only nonrecoverable outlays.

In applying for the existing facility classification under § 515.13(a) of the Interim Rule, Wabash, because of the nature of its business, considers the entire cost of the boilers to be nonrecoverable, and therefore assumes the value of the units to be the value of

scrap iron at the current prevailing rate per ton.

Wabash asserts that under § 515.13(b), significant operational detriment can be shown due to the potential impact on employment if there units were classified new. If the units are classified as new, Wabash asserts it would not be able to rent or sell the boilers. As a result, Wabash claims that its viability as a business entity would be jeopardized, and the work force associated with it would become unemployed. Wabash also contends that if the units could not be rented or sold, the entire rental boiler industry would be jeopardized. Further, Wabash contends that industry as a whole would be adversely affected by layoffs at sites requiring boiler capacity during emergencies.

ERA hereby invites all interested persons to submit written comments on this matter. The public file, containing documents on these proceedings and supporting material is available for inspection upon request at:

ERA, Room B-110, 2000 M Street, NW, Washington, DC, Monday-Friday, 8:00 am-4:30 pm.

Issued in Washington, D.C., on November 23, 1979.

Robert L. Davies,

Acting Assistant Administrator, Office of Fuels Conversion, Economic Regulatory Administration.

[FR Doc. 79-36716 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

### Entitlements Program Crude Oil Cost Data, November 1978 Through August 1979

The Economic Regulatory Administration (ERA) is initiating a bi-monthly notice of crude oil cost data. The purpose of this notice is to make available to the public the effect of the entitlements program on the crude oil costs of the various segments of the refining industry. The first table below sets forth the pre-entitlements costs of crude oil to (1) the major refiners, Amoco, Arco, Chevron, Citgo, Conoco, Exxon, Getty, Gulf, Marathon, Mobil, Phillips, Shell, Sunoco, Texaco, and Union-Oil, (2) large independent refiners (Amerada Hess, Sohio, Ashland, Coastal, Tosco, Kerr-McGee, and Champlin), and (3) small refiners. The second table below shows the post-entitlement crude oil cost distribution for the 22 major and large independent companies. The third table below shows the pre-entitlement imported crude oil cost distribution for the same 22 companies.

The data are based on the reports filed each month by all refiners on the form ERA-49 in the entitlements program.

Issued in Washington, D.C. November 20, 1979.

David J. Bardin,

Administrator, Economic Regulatory Administration.

For further information contact: Douglas McIver (Entitlements Program Office), Economic Regulatory Administration, 2000 M Street, N.W., Room 6128, Washington, D.C. 20461, (202) 254-8660; William Webb (Office of Public Information), Economic Regulatory Administration, 2000 M Street, N.W., Room B-110, Washington, D.C. 20461, (202) 634-2170.

Table I.—Crude Oil Costs Before and After Entitlement Payments

[Dollars per barrel]

	Majors (top 15) <sup>2</sup>		Large independents <sup>3</sup>		Small refiners	
	Pre	Post <sup>1</sup>	Pre	Post <sup>1</sup>	Pre	Post <sup>1</sup>
1978:						
November .....	\$12.51	\$12.91	\$13.26	\$12.95	\$13.07	\$12.23
December .....	12.68	13.06	13.78	13.25	13.22	12.43
1979:						
January .....	12.76	13.24	14.06	13.48	13.60	12.65
February .....	13.17	13.65	14.22	13.60	13.72	12.77
March .....	13.40	13.82	14.60	14.55	14.11	13.23
April .....	14.15	14.60	15.85	15.27	14.82	13.96
May .....	14.82	15.42	17.10	16.41	15.89	14.78
June .....	16.43	16.93	18.61	17.39	17.76	17.17
July .....	16.13	18.71	20.74	19.19	18.74	18.11
August .....	19.11	19.62	21.73	20.25	20.52	20.06
Change November to August .....	6.60	6.71	8.47	7.30	7.45	7.83

<sup>1</sup> Post Entitlement payment costs show the effect of the entitlements payments in the month for which the notice is published even though the payments take place two months later. August data is shown in the entitlement notice for August published in October 1979.

<sup>2</sup> (Amoco, Arco, Chevron, Citgo, Conoco, Exxon, Getty, Gulf, Marathon, Mobil, Phillips, Shell, Sunoco, Texas and Union-Oil).

<sup>3</sup> (Hess, Sohio, Ashland, Coastal, Tosco, Kerr McGee & Champlin).

Table II.—Post Entitlement Crude Oil Cost Distribution for 22 Major and Large Independent Companies<sup>1</sup>

	Novem- ber 1978	Decem- ber 1978	January 1979	February 1979	March 1979	April 1979	May 1979	June 1979	July 1979	August 1979
Number of Companies with per barrel costs of:										
\$11.00 to \$11.99 .....	2	1	1	0	0	0	0	0	0	0
\$12.00 to \$12.99 .....	6	6	8	2	3	2	0	0	0	0
\$13.00 to \$13.99 .....	13	11	7	12	5	0	2	0	0	0
\$14.00 to \$14.99 .....	1	4	5	8	13	10	5	2	0	0
\$15.00 to \$15.99 .....	0	0	1	0	0	7	5	3	1	0
\$16.00 to \$16.99 .....	0	0	0	0	1	3	6	4	0	1
\$17.00 to \$17.99 .....	0	0	0	0	0	0	2	5	4	2
\$18.00 to \$18.99 .....	0	0	0	0	0	0	1	6	5	5
\$19.00 to \$19.99 .....	0	0	0	0	0	0	1	0	4	2
\$20.00 to \$20.99 .....	0	0	0	0	0	0	0	2	6	7
\$21.00 to \$21.99 .....	0	0	0	0	0	0	0	0	0	1
\$22.00 to \$22.99 .....	0	0	0	0	0	0	0	0	0	3
\$23.00 to \$23.99 .....	0	0	0	0	0	0	0	0	2	0
\$24.00 to \$24.99 .....	0	0	0	0	0	0	0	0	0	1

<sup>1</sup> Amoco, Arco, Chevron, Citgo, Conoco, Exxon, Getty, Gulf, Marathon, Mobil, Phillips, Shell, Sunoco, Texaco, Union-Oil, Hess, Sohio, Ashland, Coastal, Tosco, Kerr McGee & Champlin.

Table III.—Pre-Entitlement Imported Crude Oil Cost Distribution for 22 Major and Large Independent Companies<sup>1</sup>

	Novem- ber 1978	Decem- ber 1978	January 1979	February 1979	March 1979	April 1979	May 1979	June 1979	July 1979	August 1979
Number of Companies with per barrel crude oil costs of:										
\$13.00 to \$13.99 .....	4	1	0	0	0	0	0	0	0	0
\$14.00 to \$14.99 .....	10	10	5	2	2	0	0	0	0	0
\$15.00 to \$15.99 .....	7	9	7	10	3	1	0	0	0	0
\$16.00 to \$16.99 .....	1	1	8	6	11	8	2	1	0	0
\$17.00 to \$17.99 .....	0	1	0	2	3	2	6	0	0	0
\$18.00 to \$18.99 .....	0	0	1	1	2	3	3	2	1	0
\$19.00 to \$19.99 .....	0	0	0	0	1	5	5	5	0	1
\$20.00 to \$20.99 .....	0	0	0	1	0	2	2	1	2	2
\$21.00 to \$21.99 .....	0	0	0	0	0	0	2	2	3	2
\$22.00 to \$22.99 .....	0	0	0	0	0	0	0	4	4	3
\$23.00 to \$23.99 .....	0	0	0	0	0	0	1	1	3	1

Table III.—Pre-Entitlement Imported Crude Oil Cost Distribution for 22 Major and Large Independent Companies<sup>1</sup>.—Continued

	November 1978	December 1978	January 1979	February 1979	March 1979	April 1979	May 1979	June 1979	July 1979	August 1979
\$24.00 to \$24.99.....	0	0	0	0	0	0	1	3	3	4
\$25.00 to \$25.99.....	0	0	0	0	0	0	0	0	1	3
\$26.00 to \$26.99.....	0	0	0	0	0	0	0	1	2	3
\$27.00 to \$27.99.....	0	0	0	0	0	0	0	0	0	1
\$28.00 to \$28.99.....	0	0	0	0	0	0	0	0	2	1
\$29.00 to \$29.99.....	0	0	0	0	0	0	0	0	0	0
\$30.00 to \$30.99.....	0	0	0	0	0	0	0	0	0	0
\$31.00 to \$31.99.....	0	0	0	0	0	0	0	0	0	0
\$32.00 to \$32.99.....	0	0	0	0	0	0	0	0	0	0
\$33.00 to \$33.99.....	0	0	0	0	0	0	0	0	1	1
\$34.00 to \$34.99.....	0	0	0	0	0	0	0	0	0	0

<sup>1</sup> (Amoco, Arco, Chevron, Citgo, Conoco, Exxon, Getty, Gulf, Marathon, Mobil, Phillips, Shell, Sunoco, Texaco, Union-Oil, Hess, Sohio, Ashland, Coastal, Tosco, Kerr McGee & Champlins).

[FR Doc. 79-36713 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

### Action Taken on Consent Orders

November 19, 1979.

In the matter of Memorandum for: Director, Office of Organization and Management Systems, Directives and Federal Register Branch, Room 4B-194, Forrestal Building, 1000 Independence Avenue, S.W., Washington, D.C. 20585, from: William D. Miller, District Manager, Central Enforcement District. **AGENCY:** Economic Regulatory Administration.

**ACTION:** Notice of Action Taken on Consent Orders.

**SUMMARY:** The Economic Regulatory Administration (ERA) of the Department of Energy (DOE) hereby gives Notice that Consent Orders were entered into between the Office of Enforcement, ERA, and the firms listed below during the month of October. These Consent Orders concern prices charged by retail motor gasoline dealers allegedly in excess of the maximum lawful selling price for motor gasoline. The purpose and effect of these Consent Orders is to bring the consenting firms into present compliance with the Mandatory Petroleum Price Regulations and the General Allocation and Price Regulations, and they do not address or limit any liability with respect to the consenting firms' prior compliance or possible violation of the aforementioned regulations. Pursuant to the Consent Order, the consenting firms agree to the following actions.

1. Reduce prices for each grade of gasoline to no more than the maximum lawful selling price;
2. Post the maximum lawful selling price, or a certificate that the current selling price is equal to or less than the maximum allowed, for each grade of gasoline on the face of each pump in

numbers and letters not less than one-half inch in height, or in a prominent place elsewhere at the retail outlet in numbers and letters not less than four inches high;

3. Properly maintain records required under the aforementioned regulations; and

4. Cease and desist from employing any discriminatory and/or unlawful business practices prohibited by the aforementioned regulations.

For further information regarding these Consent Orders, please contact William D. Miller, District Manager for Enforcement, 324 East 11th Street, Kansas City, Missouri 64106, telephone number (816) 374-5936.

Issued in Kansas City, Missouri on the 19th day of November, 1979.

Dated: November 21, 1979.

**William D. Miller,**  
District Manager of Enforcement.

Concurrence:

**David H. Jackson,**  
Chief, Enforcement Counsel.

*Firm Name, Firm Address, and Audit Date*

Ak-Sar-Ben Standard, 6002 Center Street, Omaha, NE 68106; 10-01-79  
Miller's Standard Svc., 5203 Military, Omaha, NE 68104; 10-01-79  
Weston's Mobil Svc., 4951 Dodge, Omaha, NE 68132; 10-01-79  
Stiles Mobil Svc., 2827 North 90th, Omaha, NE 68134; 10-02-79  
Stockmen's Mobil Svc., 4102 Dahlman Ave., Omaha, NE 68105; 10-02-79  
Corman's F St. Standard, 7202 F Street, Omaha, NE 68127; 10-02-79  
Dundee Service, 4926 Underwood, Omaha, NE 68132; 10-03-79  
Downtown Service, 2423 Dodge, Omaha, NE 68102; 10-03-79  
Dick's Conoco, 9th & R, Lincoln, NE 68502; 10-04-79  
Antelope Park Standard, 27th & A, Lincoln, NE 68502; 10-04-79

Owen's Red Horse Standard, 1648 South St., Lincoln, NE 68502; 10-04-79  
South Street Husky, 1401 South Street, Lincoln, NE 68502; 10-04-79  
White's 66, 2825 North 14th, Lincoln, NE 68521; 10-04-79  
Sheridan Conoco, 33rd & Sheridan, Lincoln, NE 68501; 10-04-79  
Airport, Chevron, 2925 NW 12th, Lincoln, NE 68521; 10-05-79  
Amazon Amoco, 1235 South 11th St., Lincoln, NE 68502; 10-09-79  
Brightwell Oil, 1142 42nd, Des Moines, IA 50311; 10-01-79  
Bob's Conoco, 5021 North 30th, Omaha, NE 68111; 10-09-79  
Konfrst, 515 Sharp, Glenwood, IA 51534; 10-10-79  
Charlie's Skelly Svc., 503 Broadway, Red Oak, IA 51566; 10-10-79  
Dale's Skelly, 1010 Morton Avenue, Emerson, IA 51533; 10-10-79  
Jensen Service, Minden, IA 51553; 10-10-79  
Midwest Skelly, Box A, Shelby, IA 51570; 10-10-79  
Carl Kiesel Coop, Shelby, IA 51570; 10-10-79  
Valley Mobil, 210 West Highway Valley, IA 68064; 10-10-79  
Al's Service & Repair, 405 North Bend, Fremont, NE 68025; 10-10-79  
Blanchard, Oil, Highway 59, Oakland, IA 51560; 10-11-79  
5 + M Oil Company, Box 118, Elliot, IA 51532; 10-11-79  
Lund Mobil, 1005 E. 7th Street, Atlantic, IA 50022; 10-11-79  
Link's 66, 5th & Walnut, Atlantic, IA 50022; 10-11-79  
Griswold Auto, 615 Main, Griswold, IA 51535; 10-12-79  
Carl's Auto Service, 7216 North 30th, Omaha, NE 68112; 10-15-79  
Waderisch DX, Box 233, Dow City, IA 51528; 10-16-79  
Ten Eych Standard, Box 87, Dow City, IA 51528; 10-16-79  
Seeley Oil, 116 West 9th, Logan, IA 51546; 10-16-79  
KL DX, 722 Iowa Ave., Dunlap, IA 51529; 10-16-79  
Gross Skelly, 402 E. 7th, Logan, IA 51546; 10-16-79  
Bob's Conoco, 2020 Comanche Ave., Clinton, IA 52732; 10-16-79  
Ven Horst Bros. Svc., Pleasant Valley, IA 52767; 10-16-79  
Kerr McGee No. 14, 4200 Hubbell, Des Moines, IA 50317; 10-16-79  
Rothmeyer Mobil Svc., Highway 30 West, Carroll, IA 51401; 10-17-79  
Community Oil, 1709 4th Ave. So., Denison, IA 51442; 10-17-79  
Wiese's DX, Highway 30, Vail, IA 51465; 10-17-79  
Jackson Motors, Highway 30, Vail, IA 51465; 10-17-79  
Westside DX, Westside, IA 51467; 10-17-79  
Johnson Service, Box 225, Ogden, IA 50212; 10-17-79  
Erickson's Svc. Station, South Mill St., Decorah, IA 52101; 10-17-79  
Les 66, Rt. 5, Decorah, IA 52101; 10-17-79  
Jim's Texaco, Box 291, Lime Springs, IA 50155; 10-17-79  
Whitely Oil, 804 E. Erie, Missouri Valley, IA 51555; 10-18-79

- Leroy's DX, 1020 Washington, Waterloo, IA 50702; 10-18-79
- Gene's Skelly, 507 1st Ave., Cedar Rapids, IA 52401; 10-18-79
- North Brady Texaco, 5230 Brady St., Davenport, IA 52806; 10-18-79
- 37th & Brady Shell, 37th Ave. & Brady, Davenport, IA 52806; 10-18-79
- Pille Standard, 3901 Brady, Davenport, IA 52807; 10-18-79
- I-80 Union 76 Truck Stop, I-80, Walcot, IA 52773; 10-18-79
- Candlelight Park Standard, 5310 Brady, Davenport, IA 52806; 10-18-79
- Vernie's Conoco, 127 Jefferson, Waterloo, IA 50701; 10-18-79
- Bob & Lon's Conoco, 800 Avenue E, Wisner, NE 68791; 10-24-79
- Red's 66, 705 Main, Seward, NE 68434; 10-24-79
- K & B Oil, I-80 & Highway 81, York, NE 68467; 10-24-79
- Taylor Service, 215 South 11th, Nebraska City, NE 68410; 10-24-79
- Stoll Phillips 66 Srv., 501 South 11th, Nebraska City, NE 68410; 10-24-79
- J & A Service, Box 1, Nemaha, NE 68414; 10-24-79
- Benedict Coop, Benedict, NE 68316; 10-25-79
- Bern't's One Stop Srv., Box 35, Shelby, NE 68662; 10-25-79
- Johnny's Service, 825 Nemaha Street, Humboldt, NE 68376; 10-25-79
- Fairbury Robo, 14 & E Street, Fairbury, NE 68352; 10-26-79
- Oak Hills 66 Srv., 12704 Q Street, Omaha, NE 68137; 10-04-79
- Dale's Mobil, 4601 W. Main, Belleville, IL 62220; 09-26-79
- Airport Shell Service, 6053 N. Lindbergh, Hazelwood, MO 63042; 09-28-79
- Dorsett-McKelvey Mobil, 1996 McKelvey Road, Maryland Heights, MO 63043; 09-28-79
- Dishman's Interstate Mobil, 1211 Kingshighway, Rolla, MO 65401; 09-28-79
- Aljets Garage, P.O. Box 15, Dorsey, IL 62021; 10-01-79
- Biermann's Conoco Service, 325 W. McArthur Dr., Cottage Hills, IL 62018; 10-01-79
- Gillespey's Standard Service, 523 W. Main, Collinsville, IL 62234; 10-01-79
- Midtown Mobil Service Station, 1311 N. Grand, St. Louis, MO 63106; 10-02-79
- Tabb Clark Service, 2850 Goodfellow Avenue, St. Louis, MO 63120; 10-02-79
- St. Clair Mobil Travel Center, 1445 W. Main, St. Clair, MO 63077; 10-03-79
- Dean's Campground, R.R. 1, Box 35, Villa Ridge, MO 63089; 10-03-79
- Ken Hauskins, 1st & I-70, Jonesburg, MO 63351; 10-04-79
- Gene's Mobil, P.O. Box 22, Wright City, MO 63390; 10-04-79
- Luck's Standard Service, 2610 St. Marys Avenue, Hannibal, MO 63401; 10-09-79
- Oakwood Phillips 66, 3302 Market, Hannibal, MO 63401; 10-09-79
- Jim's Texaco, 1203 Kingshighway, Rolla, MO 65401; 10-09-79
- Haxel's Main St. Standard, 1100 Main Street, Quincy, IL 62301; 10-10-79
- Wright's 66, Highway 24 & C, Huntsville, MO 65259; 10-10-79
- Jim's Standard, 1710 Missouri Avenue, Jefferson City, MO 65101; 10-10-79
- Bob's Mobil, 1109 E. Liberty, Mexico, MO 65265; 10-11-79
- Clete's Phillips 66 Service, 1800 Missouri Blvd., Jefferson City, MO 65101; 10-11-79
- Keith's Shell Service, 710 Market Street, Fulton, MO 65251; 10-12-79
- Larry Anderson Standard, 3rd & Wedeman, Wright City, MO 63390; 10-12-79
- Neighborhood Shell, 906 N. Main, Columbia, IL 62236; 10-03-79
- Pickett Bros. Texaco, 804 Mark Twain Avenue, Hannibal, MO 63401; 10-12-79
- Myers Shell Service, 6211 Delmar, St. Louis, MO 63103; 10-15-79
- Ron Hoffmeister's Standard, 644 Union Road, St. Louis, MO 63123; 10-15-79
- Hayes Service Center-Gulf, 405 Ste. Genevieve Avenue, Farmington, MO. 63640; 10-16-79
- Tommy's Gulf, 201 E. Liberty, Farmington, MO 63640; 10-16-79
- Berry's Service Station-Mobil, 100 Court Square, Fredericktown, MO. 63645; 10-16-79
- Art's Standard, Highway 55 & 51, Perryville, MO 63775; 10-16-79
- Swafford's Standard Service, Highway 67N, Poplar Bluff, MO 63901; 10-17-79
- Baygent's Mobil Service, P.O. Box 506, Highway 67N, Poplar Bluff, MO 63901; 10-17-79
- Ballas & Clayton Standard, 12200 Clayton Road, St. Louis, Mo. 63131; 10-17-79
- Brown County Shell, 216 East Main, Mt. Sterling, IL 62353; 10-17-79
- Armstrong Conoco, 140 West Main, Mt. Sterling, IL 62353; 10-17-79
- Kelsall Standard, Box 135, Ursa, IL 62376; 10-17-79
- Taylor Standard, Highway 84, Hayti, MO 63851; 10-17-79
- Carl's Holiday 66, Highway 61 South, Sikeston, Mo 63801; 10-17-79
- Riley's Mobil Service, P.O. Box 656, Sikeston, MO 63801; 10-18-79
- White's Standard, 1001 Broadway, Cape Girardeau, MO 63701; 10-18-79
- Randy's Texaco, Box 388, Dixon, MO 65459; 10-22-79
- Bob's Service, 9641 Clayton Road, St. Louis, MO 63124; 10-22-79
- Menke's Mobil Service, 825 N. Highway 67, Florissant, MO 63031; 10-24-79
- Cleesen's Broadway Shell, 14th & Broadway, Quincy, IL 62301; 10-26-79
- Frank Tomazine's Mobil, 1845 East 28 Street, Lorain, OH 44055; 10-01-79
- Howard Mohr Shell, 5851 Central Avenue, Toledo, OH 43615; 10-03-79
- Ralph Bassler Shell, I-75 & Rt. 20, Perrysburg, OH 43551; 10-04-79
- Frank's Amoco, 250 Main Street, Wintersville, OH 43952; 10-03-79
- Gramblett Sohio, 403 Washington St., Steubenville, Ohio 43952; 10-04-79
- Akron Fuel Center, 90 West Exchange, Akron, OH 44308; 10-01-79
- Wilson's Sunoco, 840 East 105 Street, Cleveland, OH 44108; 10-05-79
- Macon's Sunoco, 8716 Cedar Avenue, Cleveland, OH 44106; 10-02-79
- Tom's Sunoco, 12184 Mason Road, Cincinnati, Ohio 45242; 10-02-79
- Eastland Shell, 2191 S. Hamilton Rd., Columbus, OH 43227; 10-01-79
- Yaw's Sunoco, 10711 U.S. Rt. 20, Perrysburg, OH 43551; 10-11-79
- Cliff's Marathon, 2149 Reynolds Rd., Toledo, OH 43615; 10-12-79
- Larry's Gulf Service, 1326 Lake Avenue, Elyria, OH 49835; 10-11-79
- Thome's Sohio, 205 West Avenue, Elyria, OH 44035; 10-11-79
- Moore's Union 76, 1027 Wooster Avenue, Akron, OH 44307; 10-06-79
- Homerwood Exxon, 2221 East 42 Street, Lorain, Ohio 44052; 10/16/79
- Zack Smith Sunoco, 24584 Lorain Road, North Olmsted, Ohio 44070; 10/17/79
- Shaker Square Shell, 2871 South Moreland, Shaker Heights, Ohio 44120; 10/19/79
- Westgate Sunoco, 20961 Center Ridge Rd., Rocky River, Ohio 44116; 10/19/79
- Brunswick Exxon, 4340 Center Rd., Brunswick, Ohio 44212; 10/15/79
- Collinwood Sunoco, 845 East 152 Street, Cleveland, Ohio 44110; 10/16/79
- Toth's Sohio, 301 South Court Street, Medina, Ohio 44256; 10/17/79
- Buckeye Shell, 777 E. Dublin-Granville Rd., Columbus, Ohio 43229; 10/19/79
- J. Wallace's Texaco, 630 Columbia Road, Bay Village, Ohio 44140; 10/24/79
- Little York Exxon, 7285 Poe Avenue, Dayton, Ohio 45414; 10/25/79
- Ralph's Investments, Inc., 2001 Needmore Road, Dayton, Ohio 45414; 10/24/79
- Northern's West Carrollton Shell, 758 S. Dixie Drive, West Carrollton, Ohio 45449; 10/23/79
- Jay's Exxon, 667 St. Clair Street, East Liverpool, Ohio 43920; 10/04/79
- Lempereur Shell, 269 Nichol Street, Anderson, Indiana 46011; 10/24/79
- Rothrock Gulf Service, U.S. Hwy. 460, White Cloud, Indiana 47112; 10/24/79
- Burnett's Garage—Gulf, Jct. Hwy. 135 & 864, New Salisbury, Indiana 47161; 10/24/79
- Wolcott's Grocery (Sunoco), Route 156, Patriot, Indiana 47038; 10/25/79
- Nursery Standard, 2250 S. Arlington Hts. Rd., Arlington Heights, IL. 60005; 9/29/79
- Jerry's Service Inc., 2009 W. College Ave., Milwaukee, Wisc. 53321; 10/2/79
- Colonial Standard, Main & Prospect, Mt. Prospect, IL. 60056; 10/2/79
- Fred's Amoco Service, 124 Main, Mosinee, Wisc. 54455; 10/11/79
- Alamo Standard Service, 6906 Hohman, Hammond, Indiana; 10/12/79
- S&D Union 76, 2013 W. 63rd, Chicago, IL. 60636; 10/24/79
- Harris Imperial, Twenty Mile & M-66, Barryton, MI 49305; 10/2/79
- Bud's Texaco & Sport Shop, 10791 Main Street, Honor, MI; 10/4/79
- Reg Fisher Marathon, 2014 U.S. 31 North, Traverse City, MI; 10/4/79
- Westside Mobil, 8212 West Saginaw, Lansing, MI 48917; 10/2/79
- Fulton Heights Ser., 1331 Fulton East, Grand Rapids, MI 48917; 10/3/79
- Chink's Standard Service, 1140 Ottawa Beach Rd., Holland, MI 49423; 10/3/79
- Sugar Grove Market Standard, 2810 North U.S. 31, Scottdale, MI; 10/4/79
- Kamel Shell Service, 8020 East Seven Mile Rd., Detroit, MI 48234; 10/2/79
- Pardiac Shell Service, 5849 Eight Mile Rd., Warren, MI 48091; 10/2/79
- Stockman's Service, 1300 East Warren, Detroit, MI 48215; 10/3/79
- Warren Lakewood Sunoco, 14241 East Warren, Detroit, MI 48228; 10/3/79

Watson's Pointe Service, 17450 Mack Avenue, Grosse Pointe, MI; 10/4/79

Al Kruse Service, 14600 Warren, Detroit, MI 48215; 10/5/79

Double K Texaco, 4100 Orchard Lake Rd., Orchard Lake, MI 48033; 10/3/79

Rent-A-Ride, 21403 John R., Hazel Park, MI 48030; 10/2/79

Percy Edward's Super Service, 11002 West Eight Mile Rd., Ferndale, MI 48220; 10/3/79

Ben Kunianski, 2448 Coolidge, Berkley, MI 48022; 10/4/79

Clark Super 100, 3218 Coolidge, Berkley, MI 48022; 10/4/79

James Outlaw Gulf, 9300 Livernois, Detroit, MI; 9/20/79

James Wilkey Union 76, 18330 West Seven Mile, Detroit, MI 48235; 10/5/79

Vernice Hicks, 10400 West Seven Mile, Detroit, MI; 10/5/79

Ali Jawad-Jawad Brothers, 10833 West Seven Mile, Detroit, MI; 10/5/79

Fenkel-Meyers Union-76, 12712 Fenkel, Detroit, MI; 9/12/79

Tom Kluck Union-76 Service, 29510 Orchard Lake Rd., Farmington Hills, MI 48018; 10/5/79

Erickson Value Center, 405 North Stephenson (US 31), Iron Mountain, MI 49801; 9/25/79

Munising 66, M-28 East, Munising, MI 49862; 9/25/79

Minie's Shell-Neil Burson, 350 North Grand, Schoolcraft, MI 49807; 10/5/79

Aaron Kirkland Clark, 9240 Gratiot Ave., Detroit, MI 48213; 10/1/79

Royal Oak Mobil, 3221 N. Main, Royal Oak, MI; 10/3/79

Myras Cato-Marathon, 9670 Harper, Detroit, MI 48213; 10/1/79

Ollie Lockett Gulf, 10905 Gratiot, Detroit, MI 48213; 10/1/79

William Konczal Sunoco, 12702 N. Dixie, S. Rockwood, MI 48179; 10/4/79

Y.K. Kwon-Kim's Mobil, 11611 Schaefer, Detroit, MI; 10/10/79

Charles Tolid-Greenfield/Schoolcraft Sunoco, 15440 Schoolcraft, Detroit, MI; 10/11/79

Royal Company-Gulf, 19331 W. Seven Mile Rd., Detroit, MI 48238; 10/10/79

Barsanti's Service, 31338 Five Mile, Livonia, MI 48154; 10/11/79

Grosse Pointe Shell, 18701 Mack, Detroit, MI 48238; 10/9/79

R.L. Hildebrad X-Way Service, Wilson Rd. & M-239, New Buffalo, MI 49117; 10/1/79

Charles Washington-Washington's Amoco, 10003 Wyoming, Detroit, MI 48238; 10/15/79

Mattie Washington-Washington's Amoco, 1001 Wyoming, Detroit, MI; 10/15/79

Jo Zabala-Gulf Ser., 18833 W. Seven Mile Rd., Detroit, MI 48219; 10/15/79

Salvator Ciaramitare-Viking Oil-Sunoco, 24555 Six Mile, Detroit, MI 48219; 10/15/79

John Hamlet-Novi Standard, 43382 Grand River, Novi, Michigan 48050; 10/17/79

Erick Palo, Six Mile-Woodruff Gulf, 24203 West Six Mile; 10/15/79

Adam Gasior Wixom Union-76, I-96 & Wixom Rd., Wixom, MI 48096; 10/15/79

Carroll Knight-Knight Ent. Mobil, 31233 Grand River, Farmington, MI; 10/18/79

Ron Wolfe-Wolfe's Union-76, 21320 W. 7 Mile Rd., Detroit, MI 48219; 10/15/79

Ault's Service, 31301 Plymouth Rd., Livonia, MI 48150; 10/11/79

Quatto's Marathon, 27745 Orchard Lake Rd., Farmington Hills, MI 48024; 10/17/79

12 & Orchard Shell, 27831 Orchard Lake Rd., Farmington Hills, MI 48024; 10/17/79

Don's East Warren & Devonshire Standard, 16025 E. Warren, Detroit, MI 48224; 10/18/79

Sherman Dixon-Mobil, 11250 Haggerty, Belleville, MI 48111; 10/17/79

William Onley-Jimmie's Service, 2102 E. Michigan, Jackson, MI 49202; 10/10/79

Richard Willing-Quincy Union-76, 36 W. Chicago, Quincy, MI 49082; 10/10/79

Earnie Bailey Mobil, 10045 Middlebelt, Romulus, MI 48174; 10/17/79

Anderson's Shell Ser., 13901 Wyoming, Detroit, MI 48238; 10/15/79

William Sanders Jr.-Shell, 3766 Gratiot, Detroit, MI 48207; 10/25/79

Marcus N. Campbell Shell, 31015 Stephenson, Madison Heights, MI; 10/24/79

Best Auto, 1599 N. Woodward, Birmingham, MI 48011; 10/24/79

Grosse Pte. Standard & Quik & Shoppe, 17800 Mack Avenue, Grosse Pte., MI 48224; 10/22/79

Zoufal Standard, 6150 Chalmers, Detroit, MI; 10/22/79

Gaskins Olde Time Service-AMOCO, 1100 Bridge St., Charlevoix, MI 49720; 10/22/79

Paul's Shell, 329 West Mitchell, Petoskey, MI 49770; 10/22/79

Myers For Tires-Sunoco, 300 West Cedar St., Gladwin, MI 48824; 10/23/79

Cassidy Texaco Ser., 1533 North Eastman, Midland, MI 48840; 10/24/79

State & Center Standard, 5025 State St., Saginaw, MI 48603; 10/24/79

Sharp's Grocery, Hiway 7 & Cedar Street, Pleasant Hill, Missouri; 10/05/79

Executive Park Station, 6897 Front Street, Kansas City, Missouri; 10/05/79

Bill's Skelly, I-35 & 92 Hiway, Kearney, Missouri; 10/02/79

Westport Mobil, 3902 Main, Kansas City, Missouri; 10/16/79

Summerskill Skelly, 7101 Prospect, Kansas City, Missouri; 10/16/79

Sanders Car Wash, 7740 Wornall Road, Kansas City, Missouri; 10/16/79

[FR Doc. 79-38765 Filed 11-29-79; 8:45 am]

BILLING CODE 6450-01-M

### Domestic Crude Oil Allocation Program; Entitlement Notice for September 1979

**AGENCY:** Department of Energy, Economic Regulatory Administration.

**ACTION:** September 1979 Entitlement Notice.

**SUMMARY:** Under the Department of Energy's (DOE) domestic crude oil allocation (entitlements) program, this is the monthly entitlement notice which sets forth the entitlement purchase or sale requirements of domestic refiners for September 1979.

**DATES:** Payments for entitlements required to be purchased under this notice must be made by November 30, 1979. The monthly transaction report

specified in § 211.66(i) shall be filed with the DOE by December 10, 1979.

#### FOR FURTHER INFORMATION CONTACT:

Douglas McIver (Entitlements Program Office), Economic Regulatory Administration, 2000 M Street, N.W., Room 61281, Washington, D.C. 20461, (202) 254-8660.

Kristina Clark (Office of General Counsel), Department of Energy, Forrestal Building, 1000 Independence Avenue, S.W., Room 6A-127, Washington, D.C. 20585, (202) 252-6744.

**SUPPLEMENTAL INFORMATION:** In accordance with the provisions of 10 CFR 211.67 relating to the domestic crude oil allocation program of the Department of Energy (DOE), administered by the Economic Regulatory Administration (ERA), the monthly notice specified in § 211.67(i) is hereby published.

Based on reports for September 1979 submitted to the DOE by refiners and other firms as to crude oil receipts, crude oil runs to stills, eligible product imports, middle distillate imports, eligible petroleum substitutes, and imported naphtha utilized as a petrochemical feedstock in Puerto Rico; application of the entitlement adjustment for residual fuel oil production shipped in foreign flag tankers for sale in the East Coast market provided in § 211.67(d)(4); application of the entitlement adjustments for California lower tier and upper tier crude oil provided in § 211.67(a)(4); October 1979 deliveries of crude oil for storage in the Strategic Petroleum Reserve; and application of the entitlement adjustment for small refiners provided in § 211.67(e), the national domestic crude oil supply ratio for September 1979 is calculated to be .217568.

In accordance with § 211.67(b)(2), to calculate the number of barrels of deemed old oil included in a refiner's adjusted crude oil receipts for the month of September 1979, each barrel of old oil is equal to one barrel of deemed old oil and each barrel of upper tier crude oil is equal to .584393 of a barrel of deemed old oil.

The issuance of entitlements for the month September 1979 to refiners and other firms is set forth in the Appendix to this notice. The Appendix lists the name of each refiner or other firm to which entitlements have been issued, the number of barrels of deemed old oil included in each such refiner's adjusted crude oil receipts, the number of entitlements issued to each such refiner or other firm, and the number of entitlements required to be purchased or sold by each such refiner or other firm.

Pursuant to 10 CFR 211.67(i)(4), the price at which entitlements shall be sold and purchased for the month of September 1979 is hereby fixed at \$17.97, which is the exact differential as reported for the month of September between the weighted average per barrel costs to refiners of old oil and of imported and exempt domestic crude oil.

10 CFR 211.67(i)(4) was amended June 27, 1979 to eliminate the 21¢ entitlement penalty on imported and domestic exempt crude oils (44 FR 37940, June 29, 1979). The removal of the 21¢ penalty became effective beginning with August 1, 1979 crude runs to stills.

In accordance with 10 CFR 211.67(b), each refiner that has been issued fewer entitlements for the month of September 1979 than the number of barrels of deemed old oil included in its adjusted crude oil receipts is required to purchase a number of entitlements for the month of September 1979 equal to the difference between the number of barrels of deemed old oil included in those receipts and the number of entitlements issued to and retained by that refiner. Refiners which have been issued a number of entitlements for the month of September 1979 in excess of the number of barrels of deemed old oil included in their adjusted crude oil receipts for that month and other firms issued entitlements shall sell such entitlements to refiners required to purchase entitlements. In addition, certain refiners are required to purchase or sell entitlements to effect corrections for reporting errors for the months September 1975 through May 1979 pursuant to 10 CFR 211.67(j)(1).

The listing of refiners' old oil receipts contained in the Appendix reflects any adjustments made by ERA pursuant to § 211.67(h).

Included in the appendix are entitlements issued pursuant to the provisions of 10 CFR 211.67(a)(5) under which ERA may approve a firm's application for designation as a producer of a petroleum substitute. Archer Daniels Midland Company is the only applicant thus far to receive this designation, by order issued August 23, 1979 (Docket No. ERA-APS-78-2).

The listing contained in the Appendix identifies in a separate column labeled "Exceptions and Appeals" additional entitlements issued to refiners pursuant to relief granted by the Office of Hearings and Appeals (prior to March 30, 1978, the Office of Administrative Review of the Economic Regulatory Administration). Also set forth in this column are adjustments for relief granted by the Office of Hearings and Appeals for 1975 and 1976, which adjustments are reflected in monthly

installments. The number of installments is dependent on the magnitude of the adjustment to be made. For a full discussion of the issues involved, see *Beacon Oil Company, et al.*, 4 FEA par. 87,024 (November 5, 1976).

The listing contained in the Appendix continues the "Consolidated Sales" entry initiated in the October 1977 entitlement notice. The "Consolidated Sales" entry is equal to the September 1979 entitlement purchase requirement of Arizona Fuels. The purpose of providing for the "Consolidated Sales" entry is to ensure that Arizona Fuels is not relieved of its September 1979 entitlement purchase requirement and that no one firm will be unable to sell its entitlements by reason of a default by Arizona Fuels. For a full discussion of the issues involved, see *Entitlement Notice for October 1977* (42 FR 64401, December 23, 1977).

For purposes of § 211.67(d) (6) and (7), which provide for entitlement issuances to refiners or other firms for sales of imported crude oil to the United States Government for storage in the Strategic Petroleum Reserve, the Government made no purchases of imported crude oil.

For the month of September 1979, imports of residual fuel oil eligible for entitlements issuances totaled 26,918,287 barrels.

For the month of September 1979, imports of middle distillates eligible for entitlement issuances totaled 4,106,606 barrels.

In accordance with § 211.67(a)(4), the number of barrels of California lower tier and upper tier crude oil as reported by refiners to the DOE, and the weighted average gravity thereof are as follows:

	Volumes	Weighted average gravity
California lower tier crude oil...	3,769,590	22*
California upper tier crude oil..	5,100,978	26*

The total number of entitlements required to be purchased and sold under this notice is 20,018,999.

Based on reports submitted to the DOE by refiners as to their adjusted crude oil receipts for September 1979, the pricing composition and weighted average costs thereof are as follows:

	Volumes	Weighted average cost	Percent of total volumes*
Lower Tier.....	58,464,814	\$ 6.54	18.1
Upper Tier.....	85,485,807	14.01	19.2
Exempt Domestic:			
Heavy Oil.....	6,328,553	17.08	1.4
Alaskan.....	37,564,649	19.53	8.4
Stripper.....	47,762,028	26.80	10.6

	Volumes	Weighted average cost	Percent of total volumes*
Naval Petroleum Reserve.....	3,474,472	21.37	.8
Tertiary.....	235,162	18.83	.05
Newly Discovered.....	4,651,263	30.56	1.0
Total Domestic.....	243,366,748	16.08	54.7
Imported.....	201,863,164	25.06	45.3
Total Reported Crude Oil Receipts.....	445,829,912	\$20.14	
Total Reported Crude Oil Runs to Stills.....	450,353,670		
Total Uncontrolled (Exempt Domestic and Imported).....	301,879,291	\$24.51	67.7

\*Volumes may not add due to rounding.

Payment for entitlements required to be purchased under 10 CFR 211.67(b) for September 1979 must be made by November 30, 1979.

On or prior to December 10, 1979, each firm which is required to purchase or sell entitlements for the month of September 1979 shall file with the DOE the monthly transaction report specified in 10 CFR 211.66(i) certifying its purchases and sales of entitlements for the month of September. The monthly transaction report forms for the month of September have been mailed to reporting firms. Firms that have been unable to locate other firms for required entitlement transactions by November 30, 1979 are requested to contact the ERA at (202) 254-3336 to expedite consummation of these transactions. For firms that have failed to consummate required entitlement transactions on or prior to November 30, 1979, the ERA may direct sales and purchases of entitlements pursuant to the provisions of 10 CFR § 211.67(k).

This notice is issued pursuant to Subpart G, 10 CFR Part 205. Any person aggrieved hereby may file an appeal with the Office of Hearings and Appeals in accordance with Subpart H of 10 CFR Part 205. Any such appeal shall be filed on or before December 31, 1979.

Issued in Washington, D.C. on November 20, 1979.

David J. Bardin,  
Administrator, Economic Regulatory Administration.

## Notice of Entitlements for Domestic Crude Oil

Reporting firm short name	Deemed old oil adjusted receipts	Entitlement position					
		Total issued	Exceptions and appeals	Entitlements		Required to buy	Required to sell
				Product	California		
Consolid-Sales	160,603	0	0	0	0	0	-60,603
A-Johnson	0	119,503	0	10,789	0	0	119,503
Adm	0	7,247	0	0	0	0	7,247
Allied	55,986	57,879	0	0	0	0	1,893
Amer-Petrofina	881,341	807,935	0	0	0	73,406	0
Amerada-Hess	1,985,547	2,176,592	0	67,560	0	0	191,045
Amoco	9,769,462	6,844,725	0	0	0	2,924,737	0
Anchor	279	24,112	0	0	38	0	23,833
Apex	0	12,359	0	12,359	0	0	12,359
Arco	2,372,798	5,030,153	0	0	15,669	0	2,657,355
Arizona	96,281	35,678	0	0	2,455	60,603	0
Asamera	120,695	110,096	0	0	0	10,599	0
Ashland	1,193,195	2,550,452	0	0	0	0	1,357,257
Basin	31,996	92,111	0	0	3,870	0	60,115
Bayou	22,600	31,806	0	0	0	0	9,206
Beacon	196,207	96,425	-7,103	0	13,896	99,782	0
Belcher	0	104,599	0	104,599	0	0	104,599
Bi-Petro	32,308	34,170	0	0	0	0	1,862
Bruin	176,831	97,645	0	0	0	79,186	0
C&H	0	279	0	0	0	0	279
Calcasieu	179,339	108,609	0	0	0	70,730	0
Calumet	19,391	12,250	0	0	0	7,141	0
Canal	77,922	52,381	0	0	0	25,541	0
Carbonit	97,609	67,556	0	0	0	30,053	0
Caribou	67,466	35,621	0	0	0	31,845	0
Castle	0	37,540	0	37,540	0	0	37,540
Central	0	42,736	0	42,736	0	0	42,736
Champlin	1,808,231	1,092,068	0	0	103,039	716,163	0
Charter	355,283	385,984	-4,916	0	0	0	30,701
Charter-Bahamas	0	701,248	0	701,248	0	0	701,248
Chevron	5,871,909	7,190,499	236,060	5,960	106,335	0	1,318,590
Cibro	0	128,120	0	25,478	0	0	128,120
Citgo	1,508,296	1,611,722	0	0	0	0	103,476
Claiborne	70,038	24,785	0	0	0	45,253	0
Clark	356,884	738,459	0	0	0	0	381,575
Coastal	274,268	1,536,145	35,587	57,474	0	0	1,261,877
Coastal-Petro	0	40,199	0	0	0	0	40,199
Colonial	0	46,291	0	46,291	0	0	46,291
Conoco	2,466,399	2,217,131	0	24,312	40,744	249,268	0
Consumers-Power	0	67,656	0	67,656	0	0	67,656
Copano	10,238	14,581	0	0	0	0	4,343
Coral	0	75,507	0	0	0	0	75,507
Corco	0	720,884	0	215,713	0	0	720,884
CRA-Farmland	325,420	540,526	0	0	0	0	215,106
Cross	19,794	29,771	0	0	0	0	9,977
Crown	327,796	468,315	0	0	0	0	140,519
Crystal-Oil	135,352	89,146	0	0	0	46,206	0
Crystal-Ref	0	17,314	0	0	0	0	17,314
Delta	193,964	212,507	0	0	0	0	18,543
Demerco	0	42,399	0	0	-12	0	42,399
Detroit-Ed	0	52,737	0	52,737	0	0	52,737
DFSC	0	686	0	686	0	0	686
Diamond	574,650	387,437	0	0	0	187,213	0
Dillman	0	1,034	0	0	0	0	1,034
Dorchester	7,308	172,021	0	0	0	0	164,713
Dow	72,348	82,026	0	0	0	0	9,678
E-Seaboard	0	80,371	0	80,371	0	0	80,371
Eco	8,712	39,643	0	0	901	0	30,931
Eddy	55,426	27,427	0	0	0	27,999	0
Energy-Coop	0	602,542	0	0	0	0	602,542
Ergon	21,252	81,296	0	0	0	0	60,044
Erickson	26,079	73,164	0	0	0	0	47,085
Evangeline	44,511	27,264	0	0	0	17,247	0
Exxon	9,820,087	8,758,845	0	584,991	0	1,061,242	0
Ez-Serve	624	22,530	0	0	0	0	21,906
Farmers-Un	165,630	276,863	0	0	0	0	111,233
Figol	0	66	66	0	0	0	66
Fia-Power & Light	0	25,523	0	25,523	0	0	25,523
Fletcher	22,885	203,820	0	0	1,620	0	180,935
Flint	5,487	5,283	0	0	0	204	0
Friendswood	80,029	63,793	0	0	0	16,236	0
Funding	69,615	34,170	0	0	0	35,445	0
Garcia	0	2	2	0	0	0	2
Gary	193,489	80,378	0	0	0	113,111	0
Getty	1,289,297	1,247,431	0	0	0	41,866	0
Giant	20,942	43,644	0	0	0	0	22,702
Gibson	0	18,679	0	0	0	0	18,679
Glacier-Park	107,260	33,167	0	0	0	74,093	0
Gladieux	102,077	86,371	0	0	0	15,706	0
Golden-Eagle	0	105,436	0	0	0	0	105,436
Goldking	184,189	126,143	0	0	0	58,046	0
Good-Hope	75,319	413,918	0	0	0	0	338,599
Guam	0	258,834	0	0	0	0	258,834
Gulf	8,187,331	5,741,461	0	42,039	19,943	2,445,870	0
Gulf-Energy	29,327	22,262	0	0	0	7,065	0
Gulf-STS	131,300	80,299	0	0	0	51,001	0

## Notice of Entitlements for Domestic Crude Oil—Continued

Reporting firm short name	Deemed old oil adjusted receipts	Entitlement position					
		Total issued	Exceptions and appeals	Entitlements		Required to buy	Required to sell
				Product	California		
Hiri	0	338,931	0	0	0	0	338,931
Howell	203,155	242,551	0	0	0	0	39,396
Hudson-Oil	32,269	131,406	0	0	0	0	99,137
Hunt	216,628	174,137	0	0	0	42,491	0
Husky	798,872	798,872	485,422	0	0	0	0
Independent-Ref	72,955	102,462	0	0	0	0	29,507
Indiana-Farm	43,943	102,946	0	0	0	0	59,003
Indust-Fuel	32,680	17,633	0	0	0	15,047	0
Inter-Process	0	221,934	0	0	0	0	221,934
Irving	0	22,501	0	22,501	0	0	22,501
Kenco	34,737	27,957	0	0	0	6,780	0
Kentucky	16,446	6,182	0	0	0	10,264	0
Kern	281,376	233,151	60,049	0	15,395	48,225	0
Kerr-McGee	835,866	499,134	0	0	0	336,732	0
Koch	726,968	895,453	0	23,975	0	0	168,485
Lagloria	341,806	228,035	0	0	0	113,771	0
Lake-Charles	43,082	20,767	0	0	0	22,315	0
Lakeside	11,219	13,904	0	0	0	0	2,685
Laketon	146,337	144,709	81,427	0	0	1,828	0
Little-Amer	1,495,387	521,145	18,648	0	0	974,242	0
Louisiana-Land	514,763	205,826	0	0	0	308,937	0
MacMillan	30,392	83,163	0	0	2,581	0	52,771
Mallard	52,155	7,896	0	0	0	44,259	0
Marathon	4,714,606	3,330,855	0	0	0	1,383,751	0
Marion	35,309	109,348	0	0	0	0	74,039
Metropolitan	0	83,962	0	83,962	0	0	83,962
Mid-Amer	2,588	22,843	0	0	0	0	20,255
Mobil	5,804,688	5,558,623	0	31,365	70,632	246,065	0
Mobile-Bay	3,039	93,563	0	0	0	0	90,524
Mohawk	334,097	227,488	41,783	0	15,544	106,629	0
Monoco	0	5,834	0	5,834	0	0	5,834
Monsanto	388,566	219,838	0	0	0	168,628	0
Morrison	20,583	6,073	0	0	0	14,510	0
Mountaineer	4,194	1,285	0	0	0	2,909	0
Mt-Airy	105,974	91,325	0	0	0	14,649	0
Murphy	1,156,538	790,901	0	0	0	385,635	0
N-Amer-Petro	43,830	141,287	0	0	0	0	97,457
Natl-Coop	206,832	254,279	0	0	0	0	47,447
Navajo	352,073	220,876	0	0	0	131,197	0
Nevada	5,133	21,884	0	0	0	0	16,751
New-Edgington	286,415	266,837	69,808	0	38,229	19,578	0
New-Engl-Petro	0	-67,207	-67,207	0	0	67,207	0
New-Engl-Power	0	43,692	0	43,692	0	0	43,692
Newhall	47,601	115,276	0	0	4,556	0	67,675
Northeast-Petro	0	-2,829	-19,308	16,479	0	2,829	0
Northland	8,272	8,272	5,723	0	0	0	0
Northville	0	-41,315	-55,692	14,377	0	41,315	0
OKG	140,619	155,522	0	0	0	0	14,903
Okla-Ref	52,418	100,165	0	0	0	0	47,749
Oxnard	9,474	21,981	0	0	0	0	12,507
Pennzoll	520,319	383,289	0	0	0	137,030	0
Pestar	152,718	150,155	0	0	0	2,563	0
Petraco-Valley	237,762	28,012	0	0	0	211,750	0
Petro-Heat-Pa	0	14,186	0	14,186	0	0	14,186
Phillips	1,726,653	1,866,888	0	0	597	0	140,235
Phillips-Pr	0	206,599	0	206,599	0	0	206,599
Pioneer	81,863	45,948	0	0	0	35,915	0
Placid	625,429	260,826	0	0	0	364,603	0
Plateau	234,174	132,668	0	0	0	101,506	0
Port	-3,007	4,057	0	0	0	0	7,064
Powerline	179,359	209,455	0	0	20,350	0	30,096
Pride	177,898	140,645	0	0	0	37,253	0
Quaker-St	33,789	173,463	0	0	0	0	139,674
Quitman	0	46,255	0	0	0	0	46,255
Rancho-Ref	2,969	27,872	0	0	0	0	24,903
Richards	145	39	0	0	0	106	0
Road-Oil	0	12,946	0	0	0	0	12,946
Rock-Island	198,019	250,689	0	0	0	0	52,670
Saber-Tex	40,184	92,008	0	0	0	0	51,824
Sabre-Cal	8,516	58,422	0	0	205	0	49,906
San Joaquin	0	98,178	0	0	0	0	98,178
Scallop	0	236,185	0	236,185	0	0	236,185
Scanoil	0	25,022	0	25,022	0	0	25,022
Schulze	22,988	11,421	0	0	0	11,567	0
Seaview	0	155,018	0	0	0	0	155,018
Sector	55,069	13,648	0	0	0	41,421	0
Seminole	11,091	77,050	0	0	0	0	65,959
Sentry	16,363	168,782	75,022	0	0	0	152,419
Shell	9,484,862	5,533,075	0	0	34,957	3,951,787	0
Shepherd	27,148	67,130	0	0	0	0	39,982
Sigmat	15,399	166,317	0	0	0	0	150,918
Silver-Eagle	4,237	3,233	0	0	0	1,004	0
Slapco	94,362	50,174	0	0	0	44,188	0
So-Hampton	148,145	122,777	0	0	0	25,368	0
Sohio	1,197,999	3,120,100	0	0	0	0	1,922,101
Somerset	24,665	26,488	0	0	0	0	1,803
Sound	0	54,836	0	0	0	0	54,836

## Notice of Entitlements for Domestic Crude Oil—Continued

Reporting firm short name	Deemed old oil adjusted receipts	Entitlement position					
		Total issued	Exceptions and appeals	Entitlements		Required to buy	Required to sell
				Product	California		
Southern-Union	142,455	171,409	0	0	0	0	28,954
Southland	281,278	203,467	39,410	0	0	77,811	0
Southwestern	10,819	5,631	0	0	0	5,188	0
Sprague	0	93,753	0	93,753	0	0	93,753
Steuart	0	35,912	0	35,912	0	0	35,912
Sunland	4,131	90,134	0	0	90	0	86,003
Sunoco	3,459,823	3,426,077	0	24,246	0	33,748	0
Swann	0	36,446	0	36,446	0	0	36,446
T&S	3,506	238	0	0	0	3,268	0
Tarricone	0	4,569	0	4,569	0	0	4,569
Tenneco	1,127,035	540,645	0	0	6,917	586,390	0
Tesoro	180,654	467,858	0	15,077	0	0	287,204
Texaco	7,047,288	6,595,167	472,362	194,634	-5,126	452,121	0
Texas-American	108,470	64,307	0	0	0	44,163	0
Texas-Asph	33,945	9,544	0	0	0	24,401	0
Texas-City	700,023	667,888	0	0	0	32,135	0
Thagard	74,948	92,621	3,650	0	8,645	0	17,673
Thriftway	45,013	32,281	0	0	0	12,732	0
Thunderbird	85,029	84,787	0	0	0	242	0
Tipperary	66,788	51,688	0	0	0	15,100	0
Tonkawa	84,595	65,288	0	0	0	19,307	0
Tosco	803,184	1,259,739	0	0	42,124	0	456,555
Total-Petroleum	22,656	591,207	0	0	0	0	568,551
UCC-Caribe	0	104,993	0	104,993	0	0	104,993
Uni-Ref	44,620	81,796	0	0	0	0	37,176
Union-Carbide	0	15,715	0	15,715	0	0	15,715
Union-Oil	3,057,388	2,513,312	0	0	14,327	544,076	0
Unit Ref	126,067	250,490	0	0	0	0	124,423
US-Oil	14,062	134,879	0	0	1,272	0	120,817
USA-Petrochem	71,335	135,295	0	0	6,838	0	63,960
Val-Verde	4,671	3,190	0	0	0	1,481	0
Vickers	150,517	429,114	0	0	0	0	278,597
Vicksburg	12,249	34,671	0	0	0	0	22,422
Warrior	39,423	29,083	8,169	0	0	10,340	0
West-Coast	12,290	39,552	0	0	0	0	27,262
Western	119,763	59,088	0	0	0	60,675	0
Winston	102,027	100,928	0	0	0	1,099	0
Wireback	0	409	0	0	0	0	409
Witco	28,578	135,416	0	0	18	0	106,838
Wyoming	27,064	46,035	0	0	0	0	18,971
Yetter	0	379	0	0	0	0	379
Young	52,677	36,464	14,844	0	0	16,213	0
Total	105,453,066	105,453,066	1,093,804	3,455,584	586,649	20,018,999	20,018,199

<sup>1</sup> See discussion in Notice.

<sup>2</sup> Entitlements issued pursuant to the regulation issued May 24, 1979 (44 FR 31162, May 31, 1979) and amended August 31, 1979 (44 FR 52170, September 7, 1979) which provides entitlements benefits for imports of middle distillates for the months May 1979 through October 1979.

<sup>3</sup> This is consistent with the court's order prohibiting any further entitlement purchase requirements by this firm pursuant to the terms of the court's Judgment in *Husky Oil Co. v. DOE, et al.*, Civ. Action No. C77-190-B (D. Wyo., filed March 14, 1978), remanded F. 2d (No. 10-18 TECA, August 10, 1978).

<sup>4</sup> Corrections from prior months.

<sup>5</sup> This does not include the purchase obligation stayed by court order in *Texas Asphalt & Refinery Co. v. FEA* Civ. Action No. 4-75-268 (N.D. Tex., filed October 31, 1975).

[FR Doc. 79-36786 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

## Federal Energy Regulatory Commission

[Docket No. RP80-46]

### Alabama-Tennessee Natural Gas Co.; Notice of Tariff Filing Pursuant to Order No. 49

November 20, 1979.

Take notice that on November 13, 1979, Alabama-Tennessee Natural Gas Company (Alabama-Tennessee), P.O. Box 918, Florence, Alabama 35630, tendered for filing as part of its FPC Gas Tariff, Third Revised Volume No. 1, the following revised and additional tariff sheets:

Substitute Fourth Revised Sheet No. 5  
First Revised Sheet No. 8  
Substitute Fourth Revised Sheet No. 11

First Revised Sheet No. 12  
Substitute Fourth Revised Sheet No. 14  
First Revised Sheet No. 15  
Third Revised Sheet Nos. 33, 34  
First Revised Sheet Nos. 34-A, 36-H and  
Original Sheet Nos. 36-I through 36-M

Alabama-Tennessee states that the above-listed tariff sheets reflect the modifications and additions to its tariff required by amendments to the Commission's Regulations promulgated by Order No. 49 which requires each pipeline to establish an incremental pricing surcharge provision in its tariff on file with the Commission and to revise existing PGA provisions to meet the requirements of Part 282.

The Revised Sheet Nos. 5 through 15 modify the existing tariff sheets which are being superseded with respect to the

determination of the monthly bill to include for Rate Schedules G-1, SG-1 and I-1 an Incremental Pricing Surcharge and to include such surcharge in the minimum Monthly Bill.

Revised Sheet Nos. 33 and 34 change the Determination Period for the PGA Adjustment from twelve to six months (Sec. 20.1(b), reduce the notice requirement from forty-five to thirty days as provided by Order No. 535, issued September 16, 1975 in Docket No. RM75-9 (Sec. 20.1(d), and provide for minor modifications in Sec. 20.2 to clarify Paragraphs (a)(d) and (e) to reflect more clearly the original intent of these Paragraphs. Paragraph (f) has been added to Sec. 20.2 to provide for the transfer of the balance in the

Unrecovered Incremental Gas Costs Account pursuant to Sec. 23.

The Revised Sheet Nos. 34-A and 36-M are required for space arrangements to fit the other revisions to the tariff. Revised Sheet No. 36-H also reduces the notice period referred to above from forty-five to thirty days. Revised Sheet No. 36-M is also required to change the numbering of old Sec. 23 to Sec. 24.

The Original Sheet Nos. 36-I through 36-L are all new and are designed to meet the requirements of Order No. 49 to provide for an Incremental Pricing Surcharge.

Alabama-Tennessee states that the aforesaid tariff sheets are patterned along the same lines as those of Tennessee Gas Pipeline, a Division of Tenneco Inc., its major supplier, including its Order No. 49 filing submitted November 1, 1979. Since Alabama-Tennessee was unable to submit its filing on November 1, 1979, as required by Order No. 49, it requests a waiver of such requirement as well as the 30-day notice requirement of Section 4(d) of the Natural Gas Act and § 154.22 of the Regulations thereunder.

Alabama-Tennessee states that copies of the filing have been mailed to all of its jurisdictional customers and affected State regulatory Commissions.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8, 1.10). All such petitions or protests should be filed on or before November 26, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,

Secretary.

[FR Doc. 79-36730 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket Nos. C175-201, et. al.]

#### Atlantic Richfield Co.; Notice of Informal Conference

November 21, 1979.

Take notice that an informal conference will be convened on December 14, 1979 at 10 a.m. to discuss

compliance with the Commission's August 3, 1979 order in this proceeding.

The conference will be held in Room 3200 North at the offices of the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426.

Kenneth F. Plumb,

Secretary.

[FR Doc. 79-36731 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket Nos. RP74-81, et al.]

#### Columbia Gas Transmission Co., et al.; Notice of Filing of Pipeline Refund Reports and Refund Plans

November 20, 1979.

Take notice that the pipelines listed in

#### Appendix

Filing date	Company	Docket No.	Type filing
June 29, 1979	Columbia Gas Transmission Corporation	RP74-81	Report.
Nov. 5, 1979	Columbia Gas Transmission Corporation	RP78-20	Report.
Nov. 7, 1979	National Fuel Gas Supply Corporation	RP76-96	Report.
Nov. 14, 1979	Montana-Dakota Utilities Company	RP74-97	Report.

[FR Doc. 79-36732 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. ER80-94]

#### Consumers Power Co.; Notice of Proposed Tariff Change

November 21, 1979.

The filing Company submits the following:

Take notice that Consumers Power Company (Consumers Power) on November 15, 1979, tendered for filing Amendment No. 2 to the Operating Agreement dated March 1, 1966 among Consumers Power Company, The Detroit Edison Company and The Toledo Edison Company. Consumers Power also filed Toledo Edison's Certificate of Concurrence with Amendment No. 2. The Commission previously designated the 1966 Operating Agreement as Consumers Power Company Rate Schedule FERC No. 22.

Consumers Power states that Amendment No. 2 modifies Service Schedule A (Emergency Service) of the 1966 Operating Agreement by increasing the maximum demand charge in any day for emergency power from \$0.10 times to \$0.12 times the greatest number of kilowatts delivered in any single hour of that day and modifies Service Schedule

the Appendix hereto have submitted to the Commission for filing proposed refund reports or refund plans. The date of filing, docket number, and type of filing are also shown on the Appendix.

Any person wishing to do so may submit comments in writing concerning the subject refund reports and plans. All such comments should be filed with or mailed to the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426, on or before December 6, 1979. Copies of the respective filings are on file with the Commission and available for public inspection.

Kenneth F. Plumb,

Secretary.

D (Short Term Power) by increasing the demand charge for short-term power from \$0.50 to \$0.70 per kilowatt per week. Consumers Power states that the effective date of Amendment No. 2 will be the date on which Amendment No. 2 is accepted for filing by the FERC.

Any person desiring to be heard or to protest said amendment should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8 and 1.10). All such petitions or protests should be filed on or before December 10, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of Amendment No. 2 are on file with the Commission and are available for public inspection.

Kenneth F. Plumb,

Secretary.

[FR Doc. 79-36733 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. ER80-95]

**Duke Power Co.; Notice of Supplement to Electric Power Contract**

November 21, 1979.

The filing Company submits the following:

Take notice that Duke Power Company (Duke Power) tendered for filing on November 15, 1979 a supplement to the Company's Electric Power Contract with the City of Gastonia. Duke Power states that this contract is on file with the Commission and has been designated Duke Power Company Rate Schedule FERC No. 227.

Duke Power further states that the Company's contract supplement, made at the request of the customer and with agreement obtained from the customer, provides for the following changes in contract demand: Delivery Point No. 4 from 5,000 KW to 0- KW.

Duke Power indicates that this supplement also includes an estimate of sales and revenue for twelve months immediately preceding and for the twelve months immediately succeeding the effective date. Duke Power proposes an effective date of November 19, 1979.

According to Duke Power copies of this filing were mailed to the City of Gastonia and the North Carolina Utilities Commission.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NE., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8, 1.10). All such petitions or protests should be filed on or before December 10, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
Secretary.

[FR Doc. 79-36734 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket Nos. CS80-5, et al.]

**E. Dunlap, Jr., et al.; Notice of Applications for "Small Producer" Certificates<sup>1</sup>**

November 20, 1979.

Take notice that each of the Applicants listed herein has filed an application pursuant to Section 7(c) of the Natural Gas Act and Section 157.40 of the Regulations thereunder for a "small producer" certificate of public convenience and necessity authorizing the sale for resale and delivery of natural gas in interstate commerce, all as more fully set forth in the applications which are on file with the Commission and open to public inspection.

Any person desiring to be heard or to make any protest with reference to said applications should on or before December 12, 1979, file with the Federal Energy Regulatory Commission, Washington, D.C. 20426, petitions to intervene or protests in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 1.8 or 1.10). All protests filed with the Commission will be considered by it in determining the appropriate action to be taken but will not serve to make the protestants parties to the proceeding. Persons wishing to become parties to a proceeding or to participate as a party in any hearing therein must file petitions to intervene in accordance with the Commission's Rules.

Take further notice that, pursuant to the authority contained in and subject to the jurisdiction conferred upon the Federal Energy Regulatory Commission by Sections 7 and 15 of the Natural Gas Act and the Commission's Rules of Practice and Procedure, a hearing will be held without further notice before the Commission on all applications in which no petition to intervene is filed within the time required herein if the Commission on its own review of the matter believes that a grant of the certificates is required by the public convenience and necessity. Where a petition for leave to intervene is timely filed, or where the Commission on its own motion believes that a formal hearing is required, further notice of such hearing will be duly given.

Under the procedure herein provided for, unless otherwise advised, it will be unnecessary for Applicants to appear or be represented at the hearing.

**Kenneth F. Plumb,**  
Secretary.

<sup>1</sup> This notice does not provide for consolidation for hearing of the several matters covered herein.

Docket No.	Date filed	Applicant
CS80-5.....	10/10/79	E. Dunlap, Jr., P.O. Box 1888, Ardmore, Oklahoma 73401.
CS80-10.....	10/15/79	The Eads Co., P.O. Box 36448, Houston, Texas 77036.
CS80-11.....	10/15/79	PetroJet, Inc., P.O. Box 36448, Houston, Texas 77036.
CS80-12.....	10/16/79	Basin Minerals, Ltd., P.O. Box 1977, El Paso, Texas 79950.
CS80-13.....	10/16/79	Dotson Oil & Gas—Arlie G. Dotson, Center Point, W. Va. 26339.
CS80-14.....	10/17/79	Omni Drilling Partnership No. 1979-2, 100 Matsonford Road, Radnor, Pa. 19087.
CS80-15.....	10/17/79	Clifford Cone, P.O. Box 6010, Lubbock, Texas 79413.
CS80-16.....	10/17/79	Kathleen Cone, Eunice Gibson, and James H. Milam, as Co-Executors of the Estate of Gordon M. Cone, deceased, P.O. Box 6010, Lubbock, Texas 79413.
CS80-17.....	10/19/79	Abco Oil & Gas Company, Inc., One Houston Center—Suite 2501, Houston, Texas 77002.
CS80-18.....	10/19/79	Woodco Oil and Gas Company, 1618 C & I Building, Houston, Texas 77002.
CS80-19.....	10/19/79	James L. Hutchens, 63930 Redmond-Bend Highway, Bend, Oregon 97701.
CS80-20.....	10/22/79	Kenneth G. Cone, P.O. Drawer 1509, Lovington, New Mexico 88260.
CS80-21.....	10/22/79	Kathleen Cone, P.O. Drawer 1509, Lovington, New Mexico 88260.
CS80-22.....	10/24/79	Commodore Drilling Fund, Ltd., 175 W. Wieuca Road, N.W.—Suite 130, Atlanta, Georgia 30342.
CS80-23.....	10/24/79	Minuteman Supplemental Drilling Fund, Ltd., 43 Woodmere Road, North Brunswick, N.J. 08902.
CS80-24.....	10/24/79	The Carter Jones Lumber Co., 601 Tallmadge Road, Kent, Ohio.
CS80-25.....	10/29/79	Nancy Penny Thomas, P.O. Box 234, Norco, California 91760.
CS80-26.....	10/29/79	Sue Michel, 1143 Windsor Court, Kingsburg, California 93631.
CS80-27.....	10/30/79	Hanson Minerals Company, 9235 Katy Freeway—Suite 400, Houston, Texas 77024.
CS80-28.....	10/31/79	Cathie Auvenshine, Route 6—Box 79N, Austin, Texas 78737.
CS80-29.....	10/30/79	C. L. McMahon, Jr., et al., 5200 So. Harvard, Bldg. 6, Tulsa, Oklahoma 74135.
CS80-30.....	11/2/79	ABTEX, Inc., 306 Ertex Building, Houston, Texas 77002.
CS80-31.....	11/6/79	Landon T. Clay, 2200 South Post Oak Road—Suite 700, Houston, Texas 77056.
CS80-32.....	11/6/79	Peter M. Mark, General Partner, Mark Oil and Gas, Ltd., 1979-B Program, 1030 Charleston National Plaza, Charleston, W. Va. 25301.
CS80-33.....	11/6/79	Peter M. Mark, General Partner, Mark Oil and Gas, Ltd., 1979 Program, 1030 Charleston National Plaza, Charleston, W. Va. 25301.

Docket No.	Date filed	Applicant
CS80-34	11/6/79	Prodex Operating Company, 609 Wilson Tower, Corpus Christi, Texas 78476.
CS80-35	11/7/79	Manor Energy Corporation, 7520 North Lakeside Lane, Scottsdale, Arizona 85253.
CS80-36	11/8/79	Petroleum Engineers, Inc., P.O. Box 52588, Lafayette, Louisiana 70505.
CS80-37	11/14/79	Strihan Gas Company, 602 Hill Street, Reynoldsville, Pa. 15851.

[FR Doc. 79-36735 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. RP-78-12]

**East Tennessee Natural Gas Co.;  
Notice of Report of Refunds**

November 20, 1979.

Take notice that on November 13, 1979, East Tennessee Natural Gas Company (East Tennessee) tendered for filing a report of refunds made pursuant to the Stipulation and Agreement dated November 6, 1978 in Docket No. RP78-12.

East Tennessee states that on November 9, 1979, it mailed to each of its jurisdictional customers an invoice for October, 1979, deliveries and made the full refunds required by Article II of the Stipulation and Article X of the Stipulation for the twelve month period beginning May 1, 1978 by a credit on the invoice.

East Tennessee states that copies of the filing have been mailed to all of its affected jurisdictional customers and interested state regulatory commissions.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8, 1.10). All such petitions or protests should be filed on or before December 4, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene; provided, however, that any person who has previously filed a petition to intervene in this proceeding is not required to file a further petition. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 79-36736 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. RM79-14]

**Florida Gas Transmission Co.; Notice  
of Tariff Filing Pursuant to Order No.  
49**

November 20, 1979.

Take notice that on November 1, 1979, Florida Gas Transmission Company (FGT) tendered for filing proposed changes in its FERC Gas Tariff, Original Volume No. 1 to be effective December 1, 1979, the following tariff sheets:

Original Sheet No. 3-B  
Third Revised Sheet No. 22-C  
Second Revised Sheet No. 22-D  
Second Revised Sheet No. 22-E  
First Revised Sheet No. 22-E.1  
Original Sheet No. 22-E.2  
Original Sheet No. 22-E.3  
Original Sheet No. 22-E.4  
Original Sheet No. 22-E.5

FGT states that the purpose of its tariff filing is to establish an incremental pricing surcharge provision in its tariff as required by Order No. 49.

FGT further states that the above listed tariff sheets contain the incremental pricing surcharge provision to provide for the passthrough of costs in accordance with the requirements of Order No. 49.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street NW., Washington, D.C. 20426, in accordance with Section 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8, 1.10). All such petitions or protests should be filed on or before Nov. 26, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene; provided, however, that any person who has previously filed a petition to intervene in this proceeding is not required to file a further petition. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 79-36737 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Project No. 946]

**City of Hyrum, Utah; Notice of  
Issuance of Annual License(s)**

November 21, 1979.

The City of Hyrum, Utah is the licensee for Project No. 946 located on the Blacksmith Fork in Utah.

The license for Project No. 946 was issued effective May 1, 1928 for a period ending April 30, 1978. In order to authorize the continued operation and maintenance of the project, it is appropriate and in the public interest to issue an annual license to the City of Hyrum, Utah.

Take notice that an annual license has been issued to the City of Hyrum, Utah for a period of May 1, 1978 to April 30, 1979 or until the issuance of a new license for the project, whichever comes first, for the continued operation and maintenance of Project No. 946, subject to the terms and conditions of the original license. Take further notice that if issuance of a new license does not take place on or before April 30, 1979 a new annual license will be in effect each year thereafter, effective May 1 of each year, until such time as a new license is issued, or other appropriate action is taken by the Commission, without further notice being given by the Commission.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 79-36738 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. ER80-92]

**Iowa Public Service Co.; Notice of  
Filing**

November 21, 1979.

Take notice that on November 15, 1979 Iowa Public Service Company (Iowa) tendered for filing the Transmission Service and Facilities Agreement between Iowa and Cedar Falls Municipal Electric Utility (Cedar Falls) executed on October 2, 1979.

Iowa states that the Agreement sets forth the facilities to be constructed for the proposed transmission path, the method of payment, the ownership, operation and maintenance of the facilities and several other general provisions.

Iowa requests an effective date of January 1, 1979, and therefore requests waiver of the Commission's notice requirements.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8, 1.10). All such petitions or protests should be filed on or before December 10, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will

not serve to make protestants parties to the proceeding. Any person desiring to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 79-36739 Filed 11-28-79; 8:45 am]  
BILLING CODE 6450-01-M

[Docket No. RP80-36]

**Mississippi River Transmission Corp.;  
Notice of Filing of Tariff Revision**

November 20, 1979.

Take notice that on November 2, 1979, Mississippi River Transmission Corporation ("Mississippi") tendered for filing pursuant to Order No. 49 and Section 282.601 of the Commission's Regulations the following sheets to its FERC Gas Tariff, First Revised Volume No. 1:

Fourth Revised Sheet No. 27A  
Sixth Revised Sheet No. 27B  
Fourth Revised Sheet No. 27C  
Fourth Revised Sheet No. 27D  
Sixth Revised Sheet No. 27E  
Fourth Revised Sheet No. 27F  
Fourth Revised Sheet No. 27G  
Fifth Revised Sheet No. 27H  
Fifth Revised Sheet No. 27I  
Fifth Revised Sheet No. 27J  
Third Revised Sheet No. 27K  
Original Sheet No. 27K.1  
Original Sheet No. 27O  
Original Sheet No. 27P  
Original Sheet No. 27Q.

The sheets are proposed to be effective December 1, 1979.

Mississippi states that the purpose of these tariff sheets is to incorporate the necessary tariff revisions related to the Final Regulations Implementing the Incremental Pricing Provisions of Title II of the Natural Gas Policy Act of 1978 as contained in Order No. 49 at Docket No. RM79-14, issued September 28, 1979.

Mississippi has informed the Commission that copies of its filing have been served on its jurisdictional customers and the State Commissions of Arkansas, Illinois and Missouri.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8, 1.10). All such petitions or protests should be filed on or before December 5, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to

the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 79-36740 Filed 11-28-79; 8:45 am]  
BILLING CODE 6450-01-M

[Docket No. ER80-93]

**Montaup Electric Co.; Notice of Filing  
of Supplement to Transmission  
Service Agreement**

November 21, 1979.

The filing Company submits the following:

Take notice that on November 14, 1979 Montaup Electric Company tendered for filing an Exhibit A to its service agreement with the Town of Middleboro, Massachusetts, for transmission service under Montaup's FERC Electric Tariff, Original Volume No. II. The Exhibit A provides for transmission of 3,000 kW purchased by Middleboro from Northeast Utilities' Northfield Mountain Pumped Storage units for the period November 1, 1979 through October 31, 1983. Montaup requests waiver of the 60 day notice requirements so that the filing may become effective on November 1, 1979.

Montaup states that copies of the filing have been served on Middleboro and on the Massachusetts Department of Public Utilities.

Any person desiring to be heard or to make any protest with reference to said filing should, on or before December 10, 1979, file with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, petitions to intervene or protests in accordance with the requirements of the Commission's Rules of Practice and Procedure (18 CFR 1.8 or 1.10).

All protests filed with the Commission will be considered by it in determining the appropriated action to be taken but will not serve to make the protestants parties to the proceeding. Persons wishing to participate as a party in any hearing therein must file petitions to intervene in accordance with the Commission's Rules. The documents filed by Montaup Electric Company are on file with the Commission and available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 79-36741 Filed 11-28-79; 8:45 am]  
BILLING CODE 6450-01-M

[Docket No. RP80-45]

**Mountain Fuel Resources, Inc.; Notice  
of Change in FERC Gas Tariff**

November 20, 1979.

Take notice that on November 13, 1979, Mountain Fuel Resources, Inc. (Resources) tendered for filing, pursuant to Commission Order No. 49 issued September 28, 1976, at Docket No. RM79-14, the following tariff sheets as part of its FERC Gas Tariff, Original Volume No. 1:

Original Sheet No. 7-A  
Third Revised Sheet No. 23  
First Revised Sheet No. 24  
First Revised Sheet No. 25  
First Revised Sheet No. 26  
First Revised Sheet No. 27  
First Revised Sheet No. 28  
First Revised Sheet No. 29  
Original Sheet No. 30

These tariff sheets, as more fully explained in Resources' filing of November 9, 1979, in the referenced docket, revise Resources' Purchased Gas Cost Adjustment Provision of its FERC Tariff Original Volume No. 1 to incorporate the incremental pricing provisions of Title II of the Natural Gas Policy Act of 1978.

A copy of this filing has been served on Mountain Fuel Supply Company and interested state commissions.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8, 1.10). All such petitions or protests should be filed on or before November 26, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**  
*Secretary.*

[FR Doc. 79-36742 Filed 11-28-79; 8:45 am]  
BILLING CODE 6450-01-M

[Docket No. RM79-3]

**Natural Gas Policy Act of 1978; Notice  
of Receipt of Application for Approval  
of Alternative Filing Requirements: the  
U.S. Geological Survey**

November 20, 1979.

Take notice that on November 6, 1979, the United States Geological Survey

(USGS) filed with the Federal Energy Regulatory Commission (Commission) an application for approval of alternative filing requirements under 18 CFR § 274.207.

The alternative filing requirements sought would apply only to infill wells drilled under Orders Nos. R-1670-T and R-1670-V issued by the Conservation Division of the State of New Mexico. These orders provide for the optional drilling of an additional well per proration unit in the Blanco-Mesaverde and Basin-Dakota Pools. The USGS has ratified New Mexico's orders which find that additional drilling is necessary for effective and efficient drainage of these proration units. Accordingly, the USGS requests approval of its alternative filing requirements in lieu of the Commission's regulations in 18 CFR § 274.204(f).

Copies of this application are on file with the Commission and are available for public inspection in the Office of Public Information, Room 1000. Any interested person may file written comments regarding this application with the Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426 on or before November 28, 1979. It is reasonable and consistent with the public interest to allow a shortened period for comment. All comments filed by this date will be considered prior to Commission action on the application.

**Kenneth F. Plumb,**

*Secretary.*

[FR Doc. 79-36743 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. RP78-50]

**Northwest Pipeline Corp.; Notice of Plan of Refund Pursuant to Settlement Agreement**

November 20, 1979.

Take notice that on November 13, 1979, Northwest Pipeline Corporation ("Northwest") tendered for filing and approval its Plan of Refund pursuant to Article IX of the Stipulation and Agreement in Settlement of Rate Proceedings at Docket No. RP78-50 ("Settlement Agreement").

Article IX of the Settlement Agreement, *Contingent Refunds Related to Sales Volumes*, provides that in the event Northwest sales volumes exceed, during the 12 months beginning October 1, 1978, 351,890,000 Mcf (14.73 psia), it shall be required to refund the excess amount related to fixed costs in its sales rates, as provided in Article IX.

A copy of this filing has been served on Northwest's jurisdictional customers and affected state commissions.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8, 1.10). All such petitions or protests should be filed on or before December 4, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file with the Commission and are available for public inspection.

**Kenneth F. Plumb,**

*Secretary.*

[FR Doc. 79-36745 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

[Docket No. RP73-48 (PGA79-2)]

**Peoples Natural Gas Division of Northern Natural Gas Co.; Notice of Compliance Filing**

November 20, 1979.

Take notice that on November 15, 1979, Peoples Natural Gas Division of Northern Natural Gas Company (Peoples Division) tendered for filing proposed modifications to its September 7, 1979 filing. The filing was made in compliance with the Commission's October 4, 1979 order in Docket No. RP73-48 (PGA79-2).

Peoples Division respectfully requests that the instant filing be made effective as of October 1, 1979, in order to track the downward adjustment in gas purchase costs which became effective as of that date.

Copies of the filing were served upon the Gas Utility Customers and interested State Commissions.

Any person desiring to be heard or to protest said filing should file a petition to intervene or protest with the Federal Energy Regulatory Commission, 825 North Capitol Street, N.E., Washington, D.C. 20426, in accordance with Sections 1.8 and 1.10 of the Commission's Rules of Practice and Procedure (18 CFR 1.8 or 1.10). All such petitions or protests should be filed on or before Dec. 5, 1979. Protests will be considered by the Commission in determining the appropriate action to be taken, but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a petition to intervene. Copies of this filing are on file

with the Commission and are available for public inspection.

**Kenneth F. Plumb,**

*Secretary.*

[FR Doc. 79-36746 Filed 11-28-79; 8:45]

BILLING CODE 6450-01-M

[Docket No. SA80-17]

**Peter Cooper Corps.; Notice of Application for Adjustment**

November 21, 1979.

On October 31, 1979, Peter Cooper Corporations filed with the Federal Energy Regulatory Commission an application for an adjustment under 18 CFR § 282.202 and § 282.102, wherein Peter Cooper Corporations sought an exemption from the incremental pricing provisions of the Natural Gas Policy Act of 1978 with respect to its operations at Oak Creek, Wisconsin.

The procedures applicable to the conduct of this adjustment proceeding are found in § 1.41 of the Commission's Rules of Practice and Procedure, Order No. 24 issued March 22, 1979.

Any person desiring to participate in this adjustment proceeding shall file a petition to intervene in accordance with the provisions of § 1.41. All petitions to intervene must be filed within 15 days after publication of this notice in the **Federal Register**.

**Kenneth F. Plumb,**

*Secretary.*

[FR Doc. 79-36747 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

**Office of Assistant Secretary for International Affairs**

**Proposed Subsequent Arrangement**

Pursuant to Section 131 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2160) notice is hereby given of a proposed "subsequent arrangement" under the Additional Agreement Between the Government of the United States of America and the European Atomic Energy Community (EURATOM) Concerning the Peaceful Uses of Atomic Energy and the Agreement for Cooperation Between the Government of the United States of America and the Government of Japan.

The subsequent arrangement to be carried out under the above mentioned agreements involves approval of the following retransfer:

RTD/EU(JA)-23, from Japan to France, 1,514 grams Uranium, containing 1,321 grams U-235 (87.25%) and 650 grams Plutonium, in 43 fuel pins, to be irradiated in the Rapsodie Fortissimo Reactor for research and development of the fast breeder reactor.

In accordance with Section 131 of the Atomic Energy Act of 1954, as amended, it has been determined that the furnishing of the nuclear material will not be inimical to the common defense and security.

This subsequent arrangement will take effect no sooner than fifteen days after the date of publication of this notice.

For the Department of Energy.

Dated: November 21, 1979.

Harold D. Bengelsdorf,

Director for Nuclear Affairs, International Nuclear and Technical Programs.

[FR Doc. 79-38714 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

### United States and Spanish Agreement; Proposed Subsequent Arrangements

Pursuant to section 131 of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2160), notice is hereby given of proposed "subsequent arrangements" under the Agreement for Cooperation Between the Governments of the United States and Spain and the Agreement for Cooperation Between the Government of the United States and the European Atomic Energy Community.

The subsequent arrangements to be carried out under the above mentioned agreements involve approval of the following transfers from Spain to the United Kingdom, for the purpose of reprocessing:

Name of reactor and owner	Number of elements	Kgs of U	U-235 percent	Kgs of Pu
Jose Cabrera, Union Electrica, S.A.	20 (PWR Type)	4,944	.92	46
Santa Maria de Garona	157 (BWR Type)	29,500	.82	228

The Department of Energy has received letters of assurance from the Spanish Government that the recovered uranium and plutonium will not be transferred from the United Kingdom without prior consent of the United States Government.

In accordance with section 131 of the Atomic Energy Act of 1954, as amended, it has been determined that these subsequent arrangements will not be inimical to the common defense and security.

These subsequent arrangements will take effect fifteen days after the date of publication of this notice and after fifteen days of continuous session of the Congress, beginning the day after the date on which the reports required by section 131 of the Atomic Energy Act of 1954, as amended, (42 U.S.C. 2160) are submitted to the Committee on Foreign Affairs of the House of Representatives and the Committee on Foreign Relations of the Senate. The two time periods referred to above shall run concurrently.

For the Department of Energy.

Dated: November 27, 1979.

Harold D. Bengelsdorf,

Director for Nuclear Affairs, International Nuclear and Technical Programs.

[FR Doc. 79-36993 Filed 11-28-79; 8:45 am]

BILLING CODE 6450-01-M

### GENERAL ACCOUNTING OFFICE

#### Regulatory Reports Review; Notice of Receipt of Report Proposals

The following request for clearance of reports intended for use in collecting information from the public were accepted by the Regulatory Reports Review Staff, GAO, on November 23, 1979. See 44 U.S.C. 3512 (c) and (d). The purpose of publishing this notice in the *Federal Register* is to inform the public of such receipts.

The notice includes the title of each request received; the name of the agency sponsoring the proposed collection of information; the agency form number, if applicable; and the frequency with which the information is proposed to be collected.

Written comments on the proposed ICC requests are invited from all interested persons, organizations, public interest groups, and affected businesses. Because of the limited amount of time GAO has to review the proposed requests, comments (in triplicate) must be received on or before December 17, 1979, and should be addressed to Mr. John M. Lovelady, Assistant Director, Regulatory Reports Review, United States General Accounting Office, Room 5106, 441 G Street, NW, Washington, DC 20548.

Further information may be obtained from Patsy J. Stuart of the Regulatory Reports Review Staff, 202-275-3532.

### Interstate Commerce Commission

The ICC requests clearance of revisions to Annual Report, Form R-1, required to be filed by some 48 Class I line-haul railroads and railroad holding companies, pursuant to section 11145 of the Interstate Commerce Act. Data are used for economic regulatory purposes. Reports are mandatory and available for use by the public. Revisions made in Form R-1 resulted from the adoption of Docket No. 37082, Reporting Contributions to Employee Stock Ownership Plans, decided March 14, 1979. The new reporting requirements will be included in the footnotes to the Statement of Financial Position. In addition, the report will include the schedules previously submitted in the semiannual Ex Parte 305 report. The ICC estimates reporting burden will average 1,261 hours per report.

The ICC requests clearance of revisions to Annual Report, Form R-2, required to be filed by some 19 Class II line-haul railroads and stockyard companies, pursuant to section 11145 of the Interstate Commerce Act. Data are used for economic regulatory purposes. Reports are mandatory and available for use by the public. Revisions made to Form R-2 resulted from the adoption of Docket No. 37082, Reporting Contributions to Employee Stock Ownership Plans, decided March 14, 1979. The new reporting requirements will be included in the footnotes to the Statement of Financial Position. In addition, a new schedule will be included in the report based on Docket No. 36767, Accounting for Certain Government Transfers by Railroads and Motor Carriers of Passengers, decided June 30, 1978. The ICC estimates reporting burden will average 175 hours per report.

Norman F. Heyl,

Regulatory Reports Review Officer.

[FR Doc. 79-36707 Filed 11-28-79; 8:45 am]

BILLING CODE 1610-01-M

### GENERAL SERVICES ADMINISTRATION

[E-79-20]

#### Delegation of Authority to the Secretary of Defense

1. *Purpose.* This delegation authorizes the Secretary of Defense to represent the consumer interests of the executive agencies of the Federal Government in a gas rate proceeding before the Montana Public Service Commission.

2. *Effective date.* This delegation is effective immediately.

3. *Delegation.*

a. Pursuant to the authority vested in me by the Federal Property and Administrative Services Act of 1949, 63 Stat. 377, as amended, particularly sections 201(a)(4) and 205(d) (40 U.S.C. 481(a)(4) and 486(d)), authority is delegated to the Secretary of Defense to represent the consumer interests of the Federal executive agencies before the Montana Public Service Commission involving the application of the Great Falls Gas Company for an increase in its gas rates.

b. The Secretary of Defense may redelegate this authority to any officer, official, or employee of the Department of Defense.

c. This authority shall be exercised in accordance with the policies, procedures, and controls prescribed by the General Services Administration, and shall be exercised in cooperation with the responsible officers, officials, and employees thereof.

Dated: November 14, 1979.

R. G. Freeman III,

*Administrator of General Services.*

[FR Doc. 79-36700 Filed 11-28-79; 8:45 am]

BILLING CODE 6820-AM-M

## DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

### Alcohol, Drug Abuse, and Mental Health Administration

#### Advisory Committee; Meeting Correction

#### National Advisory Mental Health Council

In FR Doc. 79-35168, appearing on page 65818 in the issue of Thursday, November 15, 1979, the conference room number was omitted. On December 6-7, The National Advisory Mental Health Council will convene in Conference Room 6, Building 31C, National Institutes of Health. The meeting arrangements will remain as announced November 15.

Dated: November 23, 1979.

Elizabeth A. Connolly,

*Committee Management Officer, Alcohol,  
Drug Abuse, and Mental Health  
Administration.*

[FR Doc. 79-36695 Filed 11-28-79; 8:45 am]

BILLING CODE 4110-88-M

## Health Resources Administration

### Graduate Programs in Health Administration; Application Announcement for Grants for Traineeships

The Bureau of Health Manpower, Health Resources Administration, announces that applications for fiscal year 1980 grants for traineeships for graduate programs in health administration are now being accepted under the authority of Section 749 of the Public Health Service Act as amended. Application materials are expected to be available on November 16, 1979.

Section 749 authorizes grants to public or nonprofit private educational entities (excluding schools of public health) with accredited programs in health administration, hospital administration, or health policy analysis and planning. An application may not be approved unless the program for which support is requested has been accredited by an accrediting body or bodies approved for such purpose by the Commissioner of Education, DHEW (that is, the Accrediting Commission on Education for Health Services Administration).

Of the amount received by a grantee, at least 80 percent shall go to students with previous postbaccalaureate degrees or 3 years' work experience in health services. Traineeships may include the payment of stipends, tuition, and fees.

Approximately \$2 million is expected to be available in FY 1980 for grants.

Requests for application materials and questions regarding grants policy should be directed to: Grants Management Officer, (A-19), Bureau of Health Manpower, Health Resources Administration, Center Building, Room 4-27, 3700 East-West Highway, Hyattsville, Maryland 20782, Phone: (301) 436-7360.

To be considered for fiscal year 1980 funding, applications must be received by the Grants Management Officer, Bureau of Health Manpower, Health Resources Administration, at the above address no later than January 7, 1980.

Should additional programmatic information be required, please contact: Education Development Branch, Division of Associated Health Professions, Bureau of Health Manpower, Health Resources Administration, Center Building, Room 5-27, 3700 East-West Highway, Hyattsville, Maryland 20782, Phone: (301) 436-6800.

Dated: November 20, 1979.

Henry A. Foley,  
*Administrator.*

[FR Doc. 79-36701 Filed 11-28-79; 8:45 am]

BILLING CODE 4110-83-M

### Graduate Programs in Health Administration; Application Announcement for Grants

The Bureau of Health Manpower, Health Resources Administration, announces that applications for fiscal year 1980 grants for graduate programs in health administration are now being accepted under the authority of Section 791 of the Public Health Service Act as amended. Application materials are expected to be available on November 16, 1979.

Section 791 authorizes grants to public or nonprofit private educational entities (excluding schools of public health) to support graduate educational programs in health administration, hospital administration, and health planning. An application may not be approved unless the program for which support is requested has been accredited by an accrediting body or bodies approved for such purpose by the Commissioner of Education, DHEW (that is, the Accrediting Commission on Education for Health Services Administration).

Each application must contain assurances that at least 25 individuals will graduate from the programs for which support is requested, and that the applicant shall expend or obligate at least \$100,000 from non-Federal sources for such programs.

Each applicant also must assure that it will maintain a first-year, full-time enrollment which exceeds the enrollment in 1976-77 by 5 percent, if such number was not more than 100, or by 2.5 percent, or 5 students, whichever is greater, if enrollment was more than 100.

Each applicant must provide an institutional plan for activities to be pursued in developing, expanding, or enriching the program in special areas specified in the application instructions.

Approximately \$3 million is expected to be available in FY 1980 for grants.

Requests for application materials and questions regarding grants policy should be directed to: Grants Management Officer, E-10, Bureau of Health Manpower, Health Resources Administration, Center Building, Room 4-27, 3700 East-West Highway, Hyattsville, Maryland 20782, Phone: (301) 436-7360.

To be considered for fiscal year 1980 funding, applications must be received by the Grants Management Officer,

Bureau of Health Manpower, Health Resources Administration, at the above address no later than January 7, 1980.

Should additional programmatic information be required, please contact: Education Development Branch, Division of Associated Health Professions, Bureau of Health Manpower, Health Resources Administration, Center Building, Room 5-27, 3700 East-West Highway, Hyattsville, Maryland 20782, Phone: (301) 436-6800.

Dated: November 20, 1979.

Henry A. Foley,  
Administrator.

[FR Doc. 79-36702 Filed 11-28-79; 8:45 am]

BILLING CODE 4110-83-M

### Students in Schools of Public Health; Application Announcement for Grants for Traineeships

The Bureau of Health Manpower, Health Resources Administration, announces that applications for fiscal year 1980 grants for traineeships for students in schools of public health are now being accepted under the authority of Section 748(a)(1) of the Public Health Service Act as amended. Application materials are expected to be available on November 16, 1979.

Grants will be awarded to accredited schools of public health for traineeships for their students. Traineeships may include the payment of stipends, tuition, and fees. Of the amount received by a grantee in fiscal year 1980, at least 65 percent shall go to students with previous postbaccalaureate degrees or 3 years' work experience in health services and who are pursuing a course of study in:

- (1) Biostatistics or epidemiology,
  - (2) Health administration, health planning, or health policy analysis and planning,
  - (3) Environmental or occupational health,
  - (4) Dietetics or nutrition,
  - (5) Preventive medicine or dentistry,
- or
- (6) Maternal and child health.

Approximately \$6.6 million is expected to be available in FY 1980 for grants.

Requests for application materials and question regarding grants policy should be directed to: Grants Management Officer, (A-03), Bureau of Health Manpower, Health Resources Administration, Center Building, Room 4-27, 3700 East-West Highway, Hyattsville, Md. 20782. Phone: (301) 436-7360.

To be considered for fiscal year 1980 funding, applications must be received

by the Grants Management Officer, Bureau of Health Manpower, Health Resources Administration, at the above address no later than January 9, 1980.

Should additional programmatic information be required, please contact: Education Development Branch, Division of Associated Health Professions, Bureau of Health Manpower, Health Resources Administration, Center Building, Room 5-27, 3700 East-West Highway, Hyattsville, Maryland 20782, Phone: (301) 436-6800.

Dated: November 23, 1979.

Henry A. Foley,  
Administrator.

[FR Doc. 79-36694 Filed 11-28-79; 8:45 am]

BILLING CODE 4110-83-M

## DEPARTMENT OF THE INTERIOR

### Bureau of Land Management

#### Beaufort Sea Outer Continental Shelf (Tentative Sale No. 71); Call for Nominations of and Comments on Areas for Oil and Gas Leasing; Correction

The Call for Nominations of and Comments on areas for oil and gas leasing appearing in 44 FR Doc. 79-33741 at pages 62604 and 62605 in the issue of Wednesday, October 31, 1979, contained two errors.

1. Under item 2, NS 5-7 should read " \* \* \* eastward to the northeast corner of block 662. \* \* \* "

2. Under item 11, NR 7-3 should read block 309 instead of 329 and block 332 instead of block 352.

Ed Haste

Associate Director, Bureau of Land Management.

November 19, 1979.

[FR Doc. 79-36753 Filed 11-28-79; 8:45 am]

BILLING CODE 4310-84-M

#### BLM Nevada Announces Two Special Wilderness Inventories

The Bureau of Land Management in Nevada has completed two special, accelerated wilderness inventories on public land areas in the Battle Mountain and Las Vegas district offices. Public comment on the areas will be accepted until Dec. 28, 1979.

The areas involved are:

(1) Unit NV-050-0408/Macks Canyon—the unit is located southeast of Indian Springs, Nevada and contains 48,745 acres of public land. Although the majority of the unit appears to be in a substantially natural condition, the topography and physical features do not provide either outstanding opportunities

for solitude or primitive and unconfined types of recreation. An open house to acquaint the public with the Bureau's findings and accept public comment is slated for Dec. 12 from 1 to 4 p.m. at the Las Vegas BLM District Office, 4765 Vegas Drive. The special inventory was necessary because of an application from the State of Nevada to obtain land within the unit under the Recreation and Public Purposes Act for use as a prison site.

(2) Unit NV-060-386/Hickison—The unit is located southeast of Austin, Nevada and contains 23,254 acres of public land. The area was found to lack naturalness and outstanding opportunities for solitude or a primitive and unconfined type of recreation.

An open house to acquaint the public with the Bureau's findings and accepted public comment is scheduled for Dec. 19 from 1 to 4 p.m. at the Battle Mountain BLM District Office, 2nd and Scott Streets. The special inventory was necessary due to an application for a proposed powerline that will transfer power to a proposed molybdenum mine and mill near Tonopah, Nevada.

Further information on the two special, accelerated inventories can be obtained from either district office or the BLM in Reno, 300 Booth St., Room 3031, Reno, NV 89509.

Dated: November 23, 1979.

Roger J. McCormack,  
Associate State Director, Nevada.

[FR Doc. 79-36750 Filed 11-28-79; 8:45 am]

BILLING CODE 4310-84-M

#### Idaho Falls District Grazing Advisory Board; Meeting

Notice is hereby given in accordance with Public Law 92-463 that a meeting of the Idaho Falls District Grazing Advisory Board will be held on January 10, 1980.

The meeting will begin at 10:00 a.m. in the conference room of the Bureau of Land Management, 940 Lincoln Road, Idaho Falls, Idaho. Agenda for the meeting will include: (1) recap and followup from the last meeting; (2) expenditure of range betterment and advisory board funds for the remainder of fiscal year 1980; (3) discussion of Allotment Management Plans for the Little Lost/Birch Creek Unit; and (4) arrangements for next meeting.

The meeting is open to the public. Interested persons may make oral statements to the Board between 4:00 and 5:00 p.m. or file written statements for the Board's consideration. Anyone wishing to make an oral statement must notify the District Manager, Bureau of Land Management, 940 Lincoln Road,

Idaho Falls, Idaho 83401 by January 1, 1980. Depending on the number of persons wishing to make oral comments, a per person time limit may be established by the District Manager.

Summary minutes of the Board meeting will be maintained in the District Office and will be available for public inspection and reproduction (during regular business hours) within 30 days after the meeting.

Dated: November 19, 1979.

O'dell A. Frandsen,  
District Manager.

[FR Doc. 79-36746 Filed 11-28-79; 8:45 am]  
BILLING CODE 4310-84-M

[NM 38852 and 38853]

**New Mexico; Applications**

November 21, 1979.

Notice is hereby given that, pursuant to Section 28 of the Mineral Leasing Act of 1920 (30 U.S.C. 185), as amended by the Act of November 16, 1973 (87 Stat. 576), El Paso Natural Gas Company has applied for two 4½-inch natural gas pipeline rights-of-way across the following lands:

New Mexico Principal Meridian, New Mexico

T. 30 N., R. 12 W.,  
Sec. 20, W½NE¼, E½NW¼ and  
NW¼NW¼.

T. 30 N., R. 13 W.,  
Sec. 10, NE¼NW¼.

These pipelines will convey natural gas across 0.524 of a mile of public lands in San Juan County, New Mexico.

The purpose of this notice is to inform the public that the Bureau will be proceeding with consideration of whether the applications should be approved, and if so, under what terms and conditions.

Interested persons desiring to express their views should promptly send their name and address to the District Manager, Bureau of Land Management, P.O. Box 8770, Albuquerque, New Mexico 87107.

Stella V. Gonzales,  
Chief, Lands Section.

[FR Doc. 79-36751 Filed 11-28-79; 8:45 am]  
BILLING CODE 4310-84-M

[NM 38872]

**New Mexico; Application**

November 21, 1979.

Notice is hereby given that, pursuant to Section 28 of the Mineral Leasing Act of 1920 (30 U.S.C. 185), as amended by the Act of November 16, 1973 (87 Stat. 576), El Paso Natural Gas Company has applied for one 4½-inch natural gas

pipeline right-of-way across the following land:

New Mexico Principal Meridian, New Mexico  
T. 18 S., R. 29 E.,  
Sec. 31, lots 2, 3 and NE¼SW¼.

This pipeline will convey natural gas across 0.473 of a mile of public land in Eddy County, New Mexico.

The purpose of this notice is to inform the public that the Bureau will be proceeding with consideration of whether the application should be approved, and if so, under what terms and conditions.

Interested persons desiring to express their views should promptly send their name and address to the District Manager, Bureau of Land Management, P.O. Box 1397, Roswell, New Mexico 88201.

Stella V. Gonzales,  
Chief, Lands Section.

[FR Doc. 79-36752 Filed 11-28-79; 8:45 am]  
BILLING CODE 4310-84-M

**Oregon, Initial Wilderness Inventory; Final Decision in Effect**

The final decision on the initial wilderness inventory for Oregon and Washington, announced in the *Federal Register* in August 27, 1979, became effective, with the exception noted below, on September 28, 1979. The exception is Inventory Unit 11-6 for which a Notice of Appeal has been filed.

For further information contact the State Director (933), Oregon State Office, Bureau of Land Management, 729 NE Oregon Street, Portland, Oregon 97208.

E. J. Petersen,  
Acting State Director.

[FR Doc. 79-36749 Filed 11-28-79; 8:45 am]  
BILLING CODE 4310-84-M

**Utah; Announcement of the Accelerated Intermountain Power Project Wilderness Inventory Decision in Effect**

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice.

**SUMMARY:** This notice announces that the wilderness inventory decision on eight of the eleven inventory units in the Moab District associated with the Intermountain Power Project Accelerated Wilderness Inventory became effective on October 20, 1979. Formal protests were received on three of the eleven units: UT-060-007, UT-060-011, and UT-060-012. The decision on these three units will not be effective until the Utah State Director issues a

decision on the protests received. The other eight units are dropped from further wilderness review as lacking wilderness characteristics, and are released from the constraints of interim protection as set forth in 603(c) of the Federal Land Policy and Management Act of 1976.

Pursuant to the authority delegated by the Director, Bureau of Land Management, the accelerated inventory on these units associated with the Intermountain Power Project Proposal in the Moab District, Utah, has been conducted according to provisions of section 201(a) and 603 of the Federal Land Policy and Management Act of 1976, and section 2(c) of the Wilderness Act of 1964. Pursuant to instructions contained in the Washington Office memorandum dated August 15, 1978, the areas herein listed have been inventoried according to the instructions. The appropriate inventory and associated public comment period have been conducted.

The inventory units and their approximate acreage are listed below including the status announced under this *Federal Register* notice:

- UT-060-007—Muddy Creek—Approximate acreage—150,930 acres; Status—protest received—will remain under interim management until a decision on the protest is issued by the State Director.
- UT-060-011—Upper Muddy Creek—Approximate acreage—20,405 acres; Status—protest received—will remain under interim management until a decision on the protest is issued by the State Director.
- UT-060-012—Molen Reef/Sand Bench—Approximate acreage—35,160 acres; Status—protest received—will remain under interim management until a decision on the protest is issued by the State Director.
- UT-060-008—Cedar Mountain South—Approximate acreage—16,480 acres; Status—released from further wilderness consideration.
- UT-060-009A—Temple Wash—Approximate acreage—23,140 acres; Status—released from further wilderness consideration.
- UT-060-009B—Mussentuchit Wash—Approximate acreage—24,960 acres; Status—released from further wilderness consideration.
- UT-060-010—Rook Canyon—Approximate acreage—19,385 acres; Status—released from further wilderness consideration.
- UT-060-013—Quitcupah Creek—Approximate acreage—7,165 acres; Status—released from further wilderness consideration.
- UT-060-014—Molen Seep Wash—Approximate acreage—15,230 acres; Status—released from further wilderness consideration.
- UT-060-015—Favorite Hills/Sand Bench—Approximate acreage—55,600 acres; Status—released from further wilderness consideration.

UT-050-235—Wild Horse Mesa—  
Approximate acreage—25,600 acres;  
Status—released from further wilderness  
consideration.

**FOR FURTHER INFORMATION CONTACT:**  
Kent Biddulph, Utah BLM State Office,  
801-524-5326.

Dated: November 16, 1979.

Gary J. Wicks,  
State Director, Utah.

[FR Doc. 79-36703 Filed 11-28-79; 8:45 am]  
BILLING CODE 4310-84-M

## National Park Service

### Air Quality Interim Policy and Interim Implementation Guideline; Availability

**AGENCY:** National Park Service.

**ACTION:** Availability of Air Quality  
Interim Policy and Interim  
Implementation Guideline.

**FOR FURTHER INFORMATION CONTACT:**  
Chief, Air and Water Resources  
Division, Washington, D.C. 20240, [202]  
343-4911.

Notice is hereby given of the  
availability of an interim policy, and  
implementation guideline, to ensure  
National Park Service compliance with  
the Clean Air Act of 1977.

A final policy and implementation  
guideline will be developed over the  
next several months through the  
Department's rulemaking process, which  
includes full public participation. The  
policy will then be incorporated into the  
*National Park Service Management  
Policies*.

Dated: November 23, 1979.

William J. Whalen,  
Director, National Park Service.

[FR Doc. 79-36756 Filed 11-28-79; 8:45 am]  
BILLING CODE 4310-70-M

### Gateway National Recreation Area; Public Meeting

Notice is hereby given of a public  
meeting to be held commencing at 8:00  
p.m., Friday, December 14, 1979, at  
Gateway National Recreation Area,  
Sandy Hook Unit auditorium, Sandy  
Hook, New Jersey.

The purpose of the meeting is to  
discuss the feasibility of waterfowl  
hunting in the waters adjacent to the  
Sandy Hook Unit and determine public  
sentiment.

Federal legislation which established  
Gateway allows for hunting within the  
legislated boundary. Since assuming  
jurisdiction in 1974, the National Park  
Service has enforced no hunting the 1/4  
mile of water surrounding Sandy Hook.

It has been brought to the attention of  
National Park Service that waterfowl  
hunting within certain limited areas of  
the bayside would increase recreational  
use of the established recreation area.

The proposal is as follows:

1. As the result of a meeting held  
between representatives of the New  
Jersey Division of Fish, Game, and  
Shellfisheries, and National Park  
Service, concerning the possibility of  
utilizing a portion of the Sandy Hook  
Unit of the Gateway National  
Recreation Area for waterfowl hunting,  
a program has been presented to  
augment this possibility.

Available data indicates that the  
proposed areas are heavily utilized by  
waterfowl. Additionally, hunter surveys  
conducted indicate little if any  
utilization by gunners using water  
access to the area, due to lack of land  
areas to hunt from. The purpose of the  
present proposal is to indicate what  
areas would be suitable for use, how  
these areas would be delineated, and  
how controls would be developed for  
waterfowl hunting in the areas.

2. *Proposed Areas for Hunting:* The  
area proposed for hunting shall extend  
from the bayward side tip of Plum  
Island, north to the mean high water  
line, bayward side, Skeleton Hill Island  
to the northern most tip of Sandy Hook  
Peninsula in the area known as the  
Coast Guard Station, Sandy Hook  
Group. These areas are shown on the  
map attached with this proposal. It  
should be understood that the  
boundaries of these lines are subject to  
modification after a one to two year trial  
hunting program.

3. *Identification of Hunting Areas:*  
Areas which may not be hunted will be  
clearly marked by signs during the  
hunting seasons. Maps and regulations  
pertaining to hunting in the area will be  
available from the Sandy Hook Unit,  
Gateway office, and offices of New  
Jersey Division of Fish, Game, and  
Shellfisheries. These areas were  
selected after on-site inspections by  
personnel of the Bureau of Law  
Enforcement and Bureau of Wildlife  
Management from the viewpoints of  
safety and huntability.

4. *Hunting Periods:* It is recommended  
that hunting be permitted during the  
New Jersey waterfowl season, and that  
all Federal and State Regulations for  
hunting waterfowl be strictly adhered  
to.

The meeting will be open to the  
public. However, facilities and space to  
accommodate members of the public are  
limited and persons will be  
accommodated on a first-come, first-  
served basis.

Persons wishing further information  
concerning this matter, or who wish to  
submit written statements, may contact  
Herbert S. Cables, Jr., Superintendent,  
Gateway National Recreation Area,  
Building 69, Headquarters, Floyd  
Bennett Field, Brooklyn, New York  
11234, Area Code 212-630-0353.

Dated: November 8, 1979.

Gilbert W. Calhoun,  
Acting Regional Director.

[FR Doc. 79-36755 Filed 11-28-79; 8:45 am]  
BILLING CODE 4310-70-M

### Upper Delaware Citizens Advisory Council; Meeting

Notice is hereby given in accordance  
with the Federal Advisory Committee  
Act that a meeting of the Upper  
Delaware Citizens Advisory Council  
will be held at 7:00 P.M., December 28,  
1979, at the Tusten Town Hall,  
Narrowsburg, New York. The Advisory  
Council was established by Public Law  
95-625, Section 704(f) to encourage  
maximum public involvement in the  
development and implementation of  
plans and programs authorized by the  
Act and section noted above. The  
Council is to meet and report to the  
Delaware River Basin Commission, to  
the Secretary of the Interior and to the  
Governors of New York and  
Pennsylvania on the preparation of a  
management plan and on programs  
which relate to land and water use in  
the Upper Delaware region.

The matters to be discussed at this  
meeting include:

1. Implementation of Section 704 of the  
National Parks and Recreation Act of 1978.
2. Discussion of general guidelines for land  
and water use control measures.
3. New business.

The meeting will be open to the  
public. However, facilities and space to  
accommodate members of the public are  
limited, and persons will be  
accommodated on a first-come, first  
served basis. Any member of the public  
may file with the Council a written  
statement concerning the matters to be  
discussed.

Persons wishing further information  
concerning this meeting, or who wish to  
submit written statements, may contact  
David A. Kimball, Chief Planner, Mid-  
Atlantic Region, National Park Service,  
143 South Third Street, Philadelphia,  
Pennsylvania 19106, area code 215-597-  
9655.

Minutes of the meeting will be  
available for inspection four weeks after  
the meeting at the Mid-Atlantic Regional  
Office.

Dated: November 16, 1979.

James W. Coleman, Jr.,

Acting Regional Director, Mid-Atlantic Region.

[FR Doc. 79-36757 Filed 11-28-79; 8:45 am]

BILLING CODE 4310-70-M

## DEPARTMENT OF JUSTICE

### Law Enforcement Assistance Administration

#### National Institute of Law Enforcement and Criminal Justice; Program Plan

The National Institute of Law Enforcement and Criminal Justice offers this program plan as a report to those who have a general interest in the research and development activities of the Institute and as a guide to potential grantees and contractors. The plan outlines the Institute's priorities for research in FY 1980 and beyond and spells out other Institute programs and projects to be carried out during the fiscal year.

The plan cannot answer all your questions, but we hope it offers the first step for a close working relationship between the Institute and criminal justice researchers and practitioners. The Institute staff welcomes further inquiry.

The priorities presented in this plan are not mutually exclusive nor do they exhaust the possibilities for criminal justice research. We believe they do offer a rational framework for future research that reflects the major problems and needs of criminal justice, an appraisal of the existing knowledge, and identification of the gaps that must be filled before progress can be made.

The long-range agenda receives continuing scrutiny by the Institute and its Advisory Committee. As part of that process, we encourage comments and suggestions from the criminal justice and research communities and from citizens and professional organizations.

Harry Bratt,

Acting Director, National Institute of Law Enforcement and Criminal Justice.

October 1979.

#### Table of Contents

Note to Reader

Introduction

The FY 1980 Program Plan

Office of Research Programs

Police Division

Adjudication Division

Corrections Division

Community Crime Prevention

Division

Center for the Study of Crime

Correlates and Criminal

behavior

Office of Research and Evaluation Methods

Office of Program Evaluation

Office of Development, Testing, and Dissemination

Model Program Development Division

Training and Testing Division

Reference and Dissemination Division

#### Note to Reader

Programs and projects described in this report are subject to change, pending passage of legislation now before Congress that would reauthorize and reorganize the Law Enforcement Assistance Administration.

As this report was being written, the Senate had passed the Law Enforcement Assistance Reform Act which establishes within the Department of Justice an Office of Justice Assistance, Research, and Statistics, a National Institute of Justice, a Bureau of Justice Statistics, and a Law Enforcement Assistance Administration. A similar bill was reported out of the House Judiciary Committee. Action by the full House is still pending.

The proposed National Institute of Justice (NIJ) would assume the functions of the National Institute of Law Enforcement and Criminal Justice as well as additional duties. Following enactment of the legislation, detailed information on the organization and functions of the NIJ will be published and disseminated.

#### Introduction

##### Research Mandate

The National Institute of Law Enforcement and Criminal Justice was created in 1968 as the research branch of the Law Enforcement Assistance Administration. Congress gave the Institute this broad mandate: "to encourage research and development to improve and strengthen law enforcement and criminal justice."

In fulfilling the mandate, the Institute identifies research needs, sets research objectives and priorities, develops and sponsors research and development projects, and applies research findings in the development of action programs to improve criminal justice. For the most part, projects are conducted by independent grantees and contractors, although the Institute also has a small staff research program.

The Institute's mission encompasses both basic and applied research into all aspects of crime prevention and control and the administration of criminal justice. Given the scope of its mandate, Institute research projects necessarily involve many disciplines—the behavioral, social, biological, and

physical sciences, the law, operations research, and systems analysis.

In addition to research and development, the Institute administers several other programs that fulfill legislatively assigned objectives:

#### Other Objectives

- Evaluation of criminal justice programs;
- Design and field-testing of model programs based on promising research findings and advanced criminal justice practices;
- Training workshops for criminal justice practitioners in research and evaluation findings, and efforts to assist the research community through fellowships and special seminars;
- Operation of an international clearinghouse for criminal justice information, the National Criminal Justice Reference Service;
- Support for a science and technology program that tests and develops standards for equipment used by criminal justice agencies.

#### Organization

The Institute's organizational structure reflects its wide ranging responsibilities as the research arm of a mission agency. The work of the Institute is carried out through four major offices:

#### Research Programs

The Office of Research Programs administers the Institute's basic, applied, and developmental research activities primarily through external grants and contracts. The Office includes the following divisions: Police, Adjudication, Corrections, Community Crime Prevention, and the Center for the Study of Crime Correlates and Criminal Behavior.

#### Research and Evaluation Methods

The Office of Research and Evaluation Methods administers methodological research and development activities. Activities focus on research and evaluation measurement problems and system-wide research and evaluation problems in criminal justice.

#### Program Evaluation

The Office of Program Evaluation sponsors evaluations of selected programs. Among the functions of the Office are evaluation of selected LEAA-sponsored national programs and of state and local criminal justice initiatives.

### *Development, Testing, and Dissemination*

The Office of Development, Testing, and Dissemination assures that Institute research and evaluation findings are disseminated and applied. The Office identifies and develops program models; designs and sponsors field tests; supports training workshops and information sharing; provides reference, dissemination, and information services; and tests and develops standards for major items of equipment used by criminal justice agencies.

### *Overall Direction*

The Office of the Director oversees the entire Institute program. Institutewide planning, analysis, and management functions are handled by a special unit created to foster a coordinated approach that builds on the results of past Institute research.

### *Advisory Committee*

In developing its research objectives and setting priorities for both long-range and immediate research needs, the Institute relies on the counsel of its Advisory Committee of distinguished researchers and practitioners. (See inside front cover of this booklet for a list of Advisory Committee members.) The Committee meets three times a year with the Institute staff to review programs and project plans in light of current needs and issues and to assist in formulating long-range goals.

### *Long-Range Research Priorities*

In 1977, the Institute—working with its Advisory Committee—selected 10 broad topics as priorities for research over a 3- to 5-year period. The priorities are:

- Correlates of crime and determinants of criminal behavior
- Violent crime and the violent offender
- Community crime prevention
- Career criminals and habitual offenders
- Utilization and deployment of police resources
- Pretrial process: consistency, fairness, and delay reduction
- Sentencing
- Rehabilitation
- Deterrence
- Performance standards and measures for criminal justice

In addition to these designated priorities, the Institute also supports major research efforts in other important areas such as white-collar crime, alternatives to adjudication, police management, organized crime, and probation and parole.

In setting its research agenda, both short-term and long-range, the Institute

is guided by the Congressional mandate, the priorities set by the Attorney General and the LEAA Administrator, and the recommendations of its Advisory Committee.

As part of the planning process, the research priorities are periodically reviewed and refined in consultation with the Advisory Committee. In addition, the Institute annually surveys members of the research community; criminal justice practitioners; Federal, state, and local officials; and public interest groups to get their views on research proposed in the priority areas, as well as on other Institute activities planned for the forthcoming fiscal year.

### *Fiscal Year 1980 Budget*

The Institute's anticipated budget for fiscal year 1980 is \$25 million. (Although funds are appropriated annually, the Institute is not required to obligate these funds in the same fiscal year. Thus some carryover funds also may be awarded in FY 1980.)

### *Application Procedures*

This booklet outlines both the long-range priorities of the Institute and the general areas of research and program activity proposed for fiscal year 1980. It is published as a *general guide* only. Detailed specifications, funding, deadlines, and application and review procedures are set forth in program solicitations issued periodically throughout the year. Program announcements tentatively scheduled for the coming fiscal year are listed in this plan for each Institute division. Readers interested in receiving a copy of a particular program announcement should write to the National Criminal Justice Reference Service, Box 6000, Rockville, MD 20850.

### *Information on Funding Opportunities*

To ensure wide dissemination of information about funding opportunities, Institute program solicitations are announced in the *Federal Register*. Each *Federal Register* notice contains either the full text or a brief description of the official program announcement and the name of the Institute staff member to contact for additional information. Researchers interested in applying for Institute funds are urged to watch for these notices. (The *Federal Register* is available on a subscription basis for \$5 a month or \$50 a year from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

Requests for proposals for competitive contracts are published in the *Commerce Business Daily*.

The Institute also disseminates information on funding opportunities through its *Research Bulletin*, published from time to time throughout the year. (To receive copies of the *Bulletin*, please write: Research Bulletin, National Criminal Justice Reference Service, Box 6000, Rockville, MD 20850).

### *Funding Mechanisms*

The Institute is authorized to enter into grants, cooperative agreements, and contracts with public agencies, institutions of higher education, private organizations, and individuals, as well as interagency agreements with other Federal agencies. The particular funding mechanism used for each project depends upon the nature of the work to be performed. Projects normally are supported for 12 to 24 months, although for certain projects longer term funding may be provided in annual increments, depending upon satisfactory progress in the research.

### *How To Apply—Solicited Research Program*

The bulk of Institute funds are awarded each year for projects outlined in this program plan. Interested applicants must obtain a copy of the program solicitation, which spells out the specific application and review procedures to be followed, and specifies the deadline. Generally, Institute solicitations call for submission of concept papers or preliminary proposals. The length may vary depending upon the topic, but concept papers usually should not exceed 20 pages. The paper should summarize the proposed study, including objectives, methodology, milestones and anticipated products, and the preliminary budget, and indicate the applicant's competence to perform the work proposed. Based on a careful review of the concept papers, selected applicants are invited to submit full or final proposals. For projects in which the research objectives and issues are particularly well defined, the Institute may waive the concept paper stage and solicit full proposals.

Requests for full proposals do not represent a commitment by the National Institute or LEAA to support a project. Final decisions on grant awards are made by the LEAA Administrator.

### *Peer Review Process*

The Institute uses the peer review process to ensure fair and knowledgeable evaluation of papers and proposals. For each solicitation, the Institute obtains written reviews from in-house reviewers and at least two—and often three—outside experts drawn

from the criminal justice and academic communities, research organizations, and private industry. Usually, reviews are obtained at the concept paper stage and again at the proposal stage.

#### Selection Criteria

Proposals are evaluated according to the criteria specified in the program solicitation. The specific method may vary from formal numerical rankings based on weighted criteria to narrative responses only or a combination of both.

In making decisions on grant awards, the Institute is guided by the recommendations of the review panel and by the following considerations:

- Compatibility with the Institute's legislative mandate;
- Relationship to the Institute's plan and priorities and to priorities set by the Attorney General and the LEAA Administration;
- Probability of acquiring important new knowledge that advances the understanding of or the ability to solve critical problems relating to crime and the administration of justice;
- Originality, adequacy, and economy of the research design and methods;
- Experience, competence, and past performance record of the organization and staff.

#### Special Programs—Unsolicited Research Program

To ensure that creative approaches to criminal justice research issues are not overlooked, the Institute also sponsors an Unsolicited Research Program. In FY 1980, there will be two funding cycles for unsolicited research, each announced through a formal solicitation. The deadlines are December 31, 1979, and June 30, 1980.

#### Budget

A budget of up to \$1 million is anticipated for unsolicited research in FY 1980, half to be awarded in each funding cycle.

Grants normally range from \$10,000 to \$120,000 for research projects of up to 2 years' duration. Approximately \$350,000 is expected to be earmarked for grants under \$60,000. The kinds of research eligible for funding through the Unsolicited Research Program are:

- Relatively small research projects for which there are few alternative funding mechanisms;
- Projects conducted by qualified researchers relatively new to the criminal justice field;
- Research projects with innovative methodological approaches to criminal justice problems;

- Basic or applied research on interdisciplinary subject areas relevant to criminal justice;
- Exploratory studies in criminal justice areas in which there has been little previous work; and
- Research aimed at developing practical applications to criminal justice problems.

Concept papers for the unsolicited research program are reviewed by Institute staff and assigned to one of eight peer review panels: police, courts, corrections, community crime prevention, correlates and determinants, program evaluation, methodology, and performance measures.

Examples of the kinds of research funded under the Unsolicited Research Program include a study of illegal corporate behavior among the nation's largest corporations, and a project that will assess the extent to which more detailed written instructions might improve the performance of juries.

#### Visiting Fellowship Program

This program is open to highly qualified criminal justice professionals and scholars. Fellowship recipients come to Washington, D.C., to work on research of their own design. Project periods range from 3 months to 2 years. An annual program announcement is published by the Institute; applicants are required to submit concept papers by November 15 of each year.

#### For Information

For additional information on these Special Programs, please contact Richard Barnes, Director, Center for the Study of the Correlates of Crime and the Determinants of Criminal Behavior, Office of Research Program, NILECJ/LEAA, U.S. Department of Justice, Washington, DC 20531.

#### Graduate Research Fellowships

Each year a limited number of Institute-funded fellowships are awarded to doctoral candidates through sponsoring universities. The fellowships support students engaged in writing doctoral dissertations in criminal justice. For information on application procedures, contact the Office of Criminal Justice Education and Training, LEAA, U.S. Department of Justice, Washington DC 20531.

#### The Fiscal Year 1980 Program Plan

The Institute's FY 1980 research and program activities are briefly summarized in the following pages, listed under the responsible Office and/or Division. Priority research plans are discussed first, followed by other topics under consideration for FY 1980 funding.

In some cases, research on a priority topic is supported by more than one Division.

This plan is a general outline of the Institute's activities for FY 1980. Additional topics for research are under consideration and will be announced in program solicitations.

Office of Research Programs—Robert Burkhart, Director

The Office of Research Programs sponsors basic and applied research directed toward building a body of knowledge about key criminal justice issues. Within each priority area, the emphasis is on accumulating knowledge, including systematic efforts to synthesize and summarize findings. The Office has five Divisions:

Police Division—David Farmer, Director

The Institute's police research program seeks to increase the understanding of police matters by accumulating information on topics of long-term significance for law enforcement personnel and researchers. The bulk of the Division's effort is concentrated on the Institute's long-range priority, utilization and deployment of police resources.

Priority Research—Utilization and Deployment of Police Resources

Research on patrol and on criminal investigations has shed new light on how police resources are deployed and used. Studies of response time, preventive patrol, and criminal investigations have questioned commonly held assumptions that underlie current practices. Building on these studies, the research planned for the coming fiscal year focuses on issues that relate to the entire police services delivery system.

Fiscal Year 1980 Plans

The following research projects have been proposed:

*Problem-Focused Policing.* Police agencies typically are organized along "functional" lines, employing such divisions as patrol, investigation, and traffic enforcement. The workload within these units tends to be treated independently rather than a part of a process for achieving problem-related objectives. During the past decade, recommendations for a more problem-oriented approach have led some departments to innovate with special anti-crime units or directed patrols that focus resources on well-defined specific crime problems. This project would build on the Institute's extensive work on police field service delivery systems,

exploring in greater depth the opportunities for—and obstacles to—organizing police operations along problem-oriented lines.

*Private Policing.* In its 1973 report, the Private Security Task Force of the National Advisory Committee on Criminal Justice Standards and Goals noted that the lack of knowledge on this topic made police planning and decisionmaking difficult. This study will address such issues as compliance with Task Force recommendations; the nature and extent of past, current, and anticipated private security efforts and their impact on crime; and the utility of model guides for improving relations between private security forces and law enforcement agencies. Each of these topics was recommended for study by the Private Security Task Force.

#### *Other Research*

In addition to work outlined above under the priority topic, the Police Division conducts a variety of other research programs. Among those proposed for FY 1980 are the following:

#### *Fiscal Year 1980 Plans*

*Socioeconomic Trends and Policing.* Certain socioeconomic trends impinge on police decisionmaking. Shifts in the makeup of the population—fewer young people, more Americans in the older age brackets—budget cutbacks, and the energy crisis are examples. This research will assess such projected changes and how they will affect law enforcement. Among the questions to be explored: What trends are likely to affect law enforcement? What changes in roles, management techniques, and police operations are desirable in view of both current trends and future needs? How can law enforcement policymakers and administrators best provide for future eventualities?

*Forensic Research.* Appropriate procedures for collecting and analyzing evidence are often crucial to the outcome of a criminal case. The strength of an investigation often depends on how evidence is handled at the scene of the crime, analyzed in the laboratory, and presented as testimony to juries. Projects proposed in this area of research include (1) developing standards for the medical investigation of sudden death in an effort to improve the detection of homicides; (2) assessing procedures used in analyzing compounds and metabolites in unknown substances; and (3) assembling basic information on the state-of-the-art in forensic science for judges, prosecutors, defense attorneys, and police.

#### *Adjudication Division—Cheryl Martorana, Director*

In sponsoring research on the criminal adjudication process, the Adjudication Division supports studies of the overall court process, defense and prosecution functions, law reform, and alternatives to traditional adjudication. The Division's research responsibilities include two of the Institute's long-range priorities: pretrial process (delay reduction and consistency) and sentencing.

#### *Priority Research—Pre-Trial Process: Delay Reduction and Consistency*

Programs in this priority area examine the entire pretrial process as well as specific issues of fairness and delay reduction. Research to date has examined such areas as misdemeanor court management, felony case attrition, plea bargaining, and the prosecutorial function.

#### *Fiscal Year 1980 Plans*

Solicitations proposed for fiscal year 1980 include:

*The Grand Jury.* Many questions have been raised about the role of the grand jury and the manner in which it is used. The Institute is currently sponsoring a survey of the requirements for and the use of grand juries in approximately 300 jurisdictions. The proposed study will build on the results of the survey, examining in depth a number of critical issues concerning the role and function of the grand jury. The specific focus of the study will be determined after the survey results are reviewed in late 1979.

*Pre-Indictment Practices and Policies.* This study will examine the practices and degree of coordination among officials involved in making pre-indictment decisions. The research will focus primarily on two key decisions made before indictment: the decision to charge or dismiss a case, and the decision to release or detain the defendant. Both decision points will be examined within the context of a court's overall strategy for disposing of cases. The purpose is to discern overall policy and practices—articulating what so far has been implicit at each of the decision points in the pre-indictment stage—and to identify possible improvements.

*Analysis of the Role of the Bail Bondsman.* Increased use of release-on-recognizance and legislative changes affecting bail have significantly changed the role of the bail bondsman in many areas. This study will examine those changes and also will look at procedures used by bondsmen; their relationship with defendants, courts, prosecutors, and defense agencies; the economics

and organization of the bond operation; and the services bondsmen provide.

*Selection, Role and Cost of Assigned Counsel.* The appointment of attorneys to represent indigent defendants has important implications for the criminal justice system. It affects equity, case processing, and budget. This study will focus on assigned counsel systems, examining the methods for choosing attorneys for indigent defendants, the requirements for appointment, and the methods of payment.

#### *Sentencing*

Research on sentencing sponsored by the Adjudication Division has focused to date on the development and use of voluntary guidelines as a tool for making sentencing policy more explicit and consistent within a jurisdiction. Some work in this area will continue in the coming year, but proposed research also will explore other features of sentencing, including the use of alternative sanctions.

#### *Fiscal Year 1980 Plans*

The following projects have been proposed for the coming fiscal year:

*Intrastate Sentencing Variation.* Current efforts to structure sentencing discretion statewide are based on the belief that sentencing practices vary from area to area within a state. Despite this assumption, there is only sketchy evidence about the differences within a state in sentencing patterns among various urban, suburban, and rural areas. This study will begin to measure the extent of such differences, and will pinpoint the cultural and geographic factors that might account for any documented disparity. The results will be used to help devise guidelines for imposing more equitable sentences throughout a state.

*The Use of Fines as a Criminal Sanction.* Although state criminal codes permit fines to be used as sentences for a wide variety of offenses, in practice most jurisdictions impose fines only for traffic violations. This project will examine the present use of fines as sentences in this country and explore potential problems and issues involved in wider use of fines as criminal penalties.

#### *Other Research*

In addition to the priority research outlined above, the Adjudication Division plans other research on various aspects of the court process. Proposed projects include:

*The Jury Trial.* Although the jury trial is a hallmark of the criminal justice system, there are persisting questions about both the structure and

administration of the jury trial process. The aim of the proposed study is to identify the critical issues related to the process and suggest improved means of administering this important facet of criminal justice operations. The study will examine the major characteristics of a jury trial and investigate its role and function in our present system of justice. Emphasis will be given to developing and applying methodologies for examining commonly held assumptions about jury trials.

*Comparative Research on State Court Organizations.* This study will examine the theoretical soundness of a centralized system of State court administration and assess the effects of State court unification on organizational effectiveness. A research design for the study is being developed under two small FY 1979 grants. The FY 1980 study will be the first major effort to assess the impact of different kinds of court structure on effectiveness. It will build on prior descriptive studies of court unification funded by the Institute, and the results will provide evaluative information for LEAA's Fundamental Court Improvement Program.

*Corrections Division—John Spevacek, Director*

The Corrections Division concentrates its resources on two Institute long-range priorities: sentencing and rehabilitation. These two areas are closely interrelated, and research in one complements inquiries in the other. Both are relevant to the central issue in the current debate over the purpose of the criminal sanction: Should rehabilitation of the offender be the primary objective, as exemplified by the indeterminate sentence? Or should such traditional goals as equity of treatment, deterrence, and upholding societal values be paramount?

#### *Priority Research—Sentencing*

Research in sentencing, which is the shared responsibility of the Corrections and Adjudication Divisions, has been directed toward examining the purposes and consequences of differing sentencing policies as well as the related issue of the use of judicial and administrative discretion. The work sponsored by the Corrections Division focuses on the impact of sentencing practices and trends on the correctional system.

#### *Fiscal Year 1980 Plans*

The following solicitations relating to sentencing are under consideration for the coming fiscal year:

*Factors Affecting Prison Commitment Rates.* This study will explore factors

related to existing differences in prison commitment rates in the various States. Previous research has examined such factors as crime rates, unemployment, and demographic attributes that help explain the aggregate use of confinement in all Federal and State prisons. None of these, however, adequately explains variations in the size and composition of State and regional prison populations. The study will gather information about sentencing/prison commitment practices in the States for different types of offenses and offenders. It also will identify the size and characteristics of subgroups of offenders (such as addicts or mentally disturbed offenders) within various State prison populations.

*The Impact of Serving Time Under Determinate Sentencing.* What is the impact of determinate sentencing on the behavior of prison inmates? In exploring this question, this study will investigate whether removing the traditional incentives and sanctions of indeterminate sentences encourages or inhibits maintenance of order in institutions. The research also will look at other consequences of determinate sentencing. What are the effects on inmate participation in work and rehabilitation programs, on the growth or decline of inmate organizations, on management of the long-term inmate, on staff-inmate relationships, and on prison staff in general?

#### *Rehabilitation*

The central premise of rehabilitation is that various treatment programs can prepare offenders to adopt noncriminal lifestyles when they return to society. Available evidence questions this assumption, however, and there is a continuing reexamination of the role of rehabilitation in corrections. Research questions include: Is rehabilitation a realistic goal? How can we define and measure the concept and results associated with rehabilitation programs? How effective are particular rehabilitation programs, for whom and under what conditions? What is known and not known about various rehabilitation programs and practices?

#### *Fiscal Year 1980 Plans*

*A Study of Selected Probation/Parole Supervision Strategies.* Previous Institute-sponsored research found the quality of probation/parole services to be particularly important in achieving rehabilitation. This project will explore the issue further by comparing a sample of probation agencies that employ different methods for delivering probation services.

The quality of services delivered by each will be examined in terms of:

- methods and extent of service delivery;
- associated costs and resource requirements;
- organizational and operational factors associated with the quality of services;
- the impact of service delivery on client performance, as shown through followup studies of clients.

*Research on Inmate Education.* Earlier Institute research has underscored the importance of education for inmates and the need to assess the effectiveness of educational programs in corrections. This project will build knowledge that can lead to more effective, innovative correctional education programs. Three topics are under consideration for study: special training for prison-based teachers; teaching learning-disabled offenders; a comparison of coercive and noncoercive correctional education. Final decisions about the topics will be made following coordination with relevant government agencies and professional educational organizations.

*The Impact of Community Environments on Supervised Offenders.* Previous studies of the factors related to successful completion of probation or parole have concentrated on the individual offenders' personal attributes. Although the influence of the community has not been totally overlooked, further research is needed to understand what aspects of the environment encourage or inhibit an offender's successful adaptation. To provide this information, the project will correlate measures of the community environment with measure of the performance of a sample of supervised offenders in two or more jurisdictions.

#### *Other Research*

In addition to studies relating to priority topics, the Division sponsors other research that contributes to knowledge about corrections in general.

#### *Fiscal Year 1980 Plans*

*The Changing Role of Corrections.* Long-range planning for corrections cannot rely on the assumption that current trends and conditions will persist. This project will pinpoint factors likely to determine the future of corrections, such as changes in society that may produce different notions about what behavior should be considered criminal and what forms of punishment are appropriate for certain types of offenses. The research will focus on two fundamental questions: Will rehabilitation remain a goal of

corrections? What role and purpose will corrections fulfill in the future?

*Community Crime Prevention Division—Fred Heinzmann, Director*

Research by the Community Crime Prevention Division focuses on three areas: crime and the environment, citizen and community participation in crime prevention, and crimes of particular concern such as violent crime, white-collar crime, and organized crime.

*Priority Research—Community Crime Prevention*

Research continues to probe the relationship between the physical features of an environmental setting and the residents' fear of and vulnerability to crime. Ongoing work on crime and the environment is synthesizing the body of knowledge accumulated so far as a bridge to further research. Related studies are examining the link between neighborhood deterioration and crime as well as the social and physical characteristics of neighborhoods that influence safety and security. The research on citizen and community participation in crime prevention studies both individual and collective actions. Examples include evaluation of efforts by citizens to improve security; probes of citizen responses to the criminal justice system; and analyses of questions relating to mobilizing citizens in crime prevention activities. (Related, long-term research on citizen reactions to crime has been funded by the Center for the Study of Crime Correlates and Determinants of Criminal Behavior.)

*Fiscal Year 1980 Plans*

*Factors Influencing Neighborhood Responses to Crime.* Institute research suggests that neighborhoods with similar characteristics may differ in how they perceive and respond to crime. This research will examine factors at the neighborhood level (institutional, organizational, social-psychological) that shape and influence citizen awareness, attitudes, and behavior toward crime. Comparative studies will be made and attention given to crime tolerance levels and their effects on citizen participation activities.

*Commercial Land Use Patterns and Crime.* Earlier Institute research suggests that physical aspects of the environment can influence both crime and fear of crime. This research will examine commercial land uses and crime to determine the nature of the relationships that exist between them at the block and subneighborhood level. The research will analyze the factors that influence commercial land use and crime, including the attitudes and

behavior of residents and nonresidents that help explain how the location of certain facilities or services affect both safety and security. The results should be useful to city planners and urban designers.

*Violent Crime*

Research in this priority includes studies of weapons and violent crime, homicide, collective disorders, and arson. A longterm study of the causes of violence also is underway.

*Fiscal Year 1980 Plans*

The following project is planned for the coming fiscal year:

*Arson Case Processing.* The incidence of arson—a crime that has increased dramatically in the last decade—has spurred an agency wide initiative to curb the crime. Building on research now underway, this project will examine arson cases to determine the factors that led to, or prevented, successful prosecution. Augmenting the review of court cases will be interviews with prosecutors, judges, and, where appropriate, jury members. Other records such as real estate transactions and case histories of offenders may also be used to learn more about factors influencing the prosecution and adjudication of arson cases.

*Other Research*

In addition to its work on the community crime prevention and violent crime priorities, the Division funds studies of organized crime and white-collar crime.

*Organized Crime*

Studies in this area have examined the operations and structure of the rackets—bookmaking, loansharking, and numbers—in metropolitan New York. Research in progress is studying the involvement of organized crime in legitimate businesses.

In FY 1980, proposals will be solicited for:

*Organized Crime Research Program.* Envisioned as a 5-year program to be funded through consecutive grants, this research will study key problems and issues relating to the nature and scope of organized crime and the criminal justice system's response to it. The Department of Justice and LEAA will help guide development of the research and the specific topics to be studied. The findings are expected to lead to development of recommendations for more effective investigation and prosecution of these offenses. Because the program will entail a multidisciplinary approach, respondents to the solicitation must demonstrate

ability to coordinate and direct research efforts by several highly qualified groups of researchers.

*White-Collar Crime*

White-collar crime research funded by the Division covers four areas: data needs, crimes against consumers and the public, crimes against business, and crimes against government.

As a first step toward improving data sources, a current project is surveying more than 30 Federal agencies to learn how events become known and defined to fit concepts of white-collar crime. A recently completed study on fraud and abuse in government benefit programs surveyed current practices to prevent, detect, investigate, and prosecute abuse of government programs. Another study is surveying workers in the retail, manufacturing, and service sectors to learn more about the nature of employee theft and factors that influence it.

*Fiscal Year 1980 Plans*

*Preventing and Controlling Fraud in Government Programs.* As a follow-on to current research on fraud and abuse in government benefit programs, this project will focus on prevention and control strategies. Plans for the research will be coordinated with government officials responsible for investigating fraud in various benefit programs.

*Center for the Study of Crime Correlates and Criminal Behavior—Richard Barnes, Director*

In coordination with other Institute Divisions, the Center funds research relating to several of the Institute's long-range priorities: *Crime correlates and determinants, criminal careers, criminal violence, and community crime prevention.* It also is the focal point for research on minorities and crime and for activities responding to the 1976 Congressional mandate that directed the Institute to study—in collaboration with the National Institute on Drug Abuse—the relationship between drugs and crime. The Center's work also contributes to LEAA's priority program on white-collar crime.

The Center's research strategy emphasizes support for long-term research, for multidisciplinary and interdisciplinary inquiries, and for longitudinal designs. One example of this approach is the Research Agreements Program, begun in 1975, which links the Institute to established research centers throughout the country for long-term studies of broad problems relating to crime and justice. Five Research Agreements have been funded on these topics: career criminals, white-

collar crime, unemployment and crime, community reactions to crime, and econometric studies of criminal justice problems.

In addition to the foregoing, the Center also manages two special Institute programs: the Unsolicited Research Program and the Visiting Fellowship Program described earlier in this booklet.

#### *Priority Research Correlates of Crime and Determinants of Criminal Behavior*

Under this priority, funds are available for research to improve the understanding of crime and criminal behavior. An important first step in disentangling the web of factors that underlies criminality is the accumulation and synthesis of sound research findings that either support or refute correlations between crime and such factors as unemployment, alcohol and drug abuse, and health disorders. Once significant correlations have been verified, research can then proceed to explore possible causal links.

Much of the work supported is basic research, although funds are also awarded for projects of a more applied nature. Because the program deals with a number of far-reaching and fundamental issues, a limited amount of funds also is budgeted for workshops or colloquia and to commission papers on issues relating to the topics under study.

A tentative list of solicitations for FY 1980 research is summarized below.

#### *Fiscal Year 1980 Plans*

A major effort proposed for FY 1980 will develop up to three external centers for research on particularly significant topics. This effort was initiated last year as continuation of the Research Agreements Program. Building on that experience, the Institute last year awarded funds to create a center for basic research on criminal violence. The Institute anticipates that, over time, the centers could become recognized reservoirs of knowledge in specific fields of inquiry. FY 1980 solicitations will be issued under the Research Agreements Program for these centers, each of which would be funded for an initial phase of an anticipated 5-year program.

*Center for the Study of Drugs/Alcohol and Crime.* The major emphasis will be on developing basic knowledge of the underlying relationships between drugs/alcohol and crime. The foundation for research is expected to be provided in agendas now being developed under existing grants. Initially, the Center probably would focus on how drug use and crime patterns vary and develop over the life cycles of typical abuser

populations; the relationships of different multi-drug abuse patterns (including alcohol) to different subgroups of abusers and types of crime; and what factors within peer cohorts may distinguish between criminal and noncriminal drug abusers and nonabusers.

*Center for the Study of Race, Crime, and Social Policy.* This center will provide long-term support to various crime-related topics of special concern to minorities. The core staff of the center will be representative of minority groups. Under the grant, there could be three or four subgrantees to conduct research projects exploring minority issues. Specific research projects will be developed in annual negotiations between the National Institute and the grantee, with recommendations from an advisory board to the center.

*Center for Research on Crime Causation and Criminal Behavior.* To attract a broader research community to the study of crime causation, the Institute plans to announce an "open" solicitation for research proposals in this area. Implicit in the concept of an "open" solicitation is the understanding that the crime correlates and determinants priority encompasses many different topics suitable for etiological investigation and involves issues that cut across a variety of research disciplines. Complementing more precise research solicitations for other Institute programs, this open solicitation is designed to elicit innovative research proposals for developing knowledge about the causes of crime.

#### *Career Criminals*

Research under this priority includes studies of the nature, identification, classification, and characteristics of career criminals and how the criminal justice system deals with them. A recent award supports continuation of a 5-year Research Agreements Program on the topic scheduled for completion in 1981. Emphasis in the research is on identifying predictors of career criminals and estimating the effects on the crime rate of incarcerating such offenders.

#### *Other Research White-Collar Crime*

The Center's principal activity in this LEAA-wide priority area is a Research Agreement with Yale University, scheduled for completion in 1980. Yale's research on white-collar crime has focused primarily on Federal efforts to control white-collar crime. Other research on this topic, including projects stemming from the Yale studies, is supported by the Community Crime

Prevention Division and is described under that heading.

#### *Minorities and Crime*

In FY 1978, the Center commissioned the Urban League to review the state-of-the-art on this topic. That project is expected to provide directions for future research.

#### *Fiscal Year 1980 Plans*

Plans for creation of a Center for the Study of Race, Crime, and Social Policy are described above. Other projects may stem from the Urban League's effort.

#### *Women and Crime*

A recent award is supporting the study of the comparative processing of the adult female offender. The project is attempting to determine if or to what extent the criminal justice system deals differently with men and women.

#### *Office of Research and Evaluation Methods—Richard L. Linster, Director; Priority Research—Deterrence*

The Office of Research and Evaluation Methods supports projects that explore methodological and measurement problems facing criminal justice researchers and evaluators. The research usually entails the development or adaptation of advanced analytical techniques to problems in crime analysis and control. This Office administers two of the Institute's long-range priorities: deterrence and performance measurement.

The goal of this priority research program is to develop and validate coherent theories and models for estimating the effects of various criminal sanctions on crime rates. Projects funded examine how various crime control policies work and assess their relative effectiveness. Support is also provided for basic research on estimating the direct effect of the incarceration of offenders on crime rates. Much of the research funded to date has explored the effects of recent legislation passed by states to change some aspect of formal criminal sanctions—mandating specific sentence lengths for certain crimes, for example.

Measuring the effectiveness of crime control policies presents special difficulties. It requires credible methods of counting events that never take place—for example, how many additional crimes will not be committed if convicted offenders are incarcerated for longer periods. Obviously, the validity of such estimates rests on the credibility of the models from which they are derived. For that reason, the deterrence research program is concerned with devising or refining

theories and model structures, testing their underlying assumptions, and validating their predictive power.

#### *Fiscal Year 1980 Plans*

A single solicitation will be issued inviting research proposals that may relate to any area of crime control:

- General deterrence—the theory that the risk of arrest and punishment discourages potential offenders from committing crimes.
- Incapacitation—the physical separation of offenders from potential victims through incarceration.
- Specific deterrence—the theory that future criminal behavior by individual offenders is suppressed through the experience of arrest, conviction, and incarceration.
- Rehabilitation—the criminal justice system's efforts to alter an offender's behavior in a positive way.

#### *Performance Measurement*

A comprehensive system of performance measures that covers the full scope of criminal justice activities does not yet exist. Evaluations of criminal justice operations to date have not accumulated the kind of structured knowledge about the roles of criminal justice agencies that would readily lend itself to the measurement of their achievements.

Project evaluations, for example, are typically narrow in focus. They may assess the degree to which one or two objectives are met, but they often fail to account for all important costs and benefits. And each evaluator chooses specific performance indicators, making attempts to synthesize evaluation results difficult.

The aim of research in this priority area is to develop and validate performance measures to be used as management and accountability tools by criminal justice practitioners and municipal officials. As part of this aim, efforts necessarily must be directed toward developing a conceptual framework that relates performance to actual operations of an agency. In FY 1978, the Office began a four-phase program to develop a conceptual framework for evaluating performance and performance measures. That year the Office awarded five grants—one each for studies of police, prosecution and public defense, courts, adult corrections, and the system as a whole. Upon completion of these projects, the program plans to move through three more phases: empirical research on unresolved issues, development of prototype performance measurement systems, and a national implementation program.

#### *FY 1980 Plans*

Building on findings from the first phase, the program for FY 1980 will move into the next phase—empirical research on unresolved issues.

#### *Other Research—Methodology Research*

The Office of Research and Evaluation also sponsors a modest program of support for studies of high technical merit aimed at research, development, and testing of methodological innovations potentially significant to criminal justice.

During FY 1979 eight grants were awarded. Among the topics explored: a project to develop and assess alternatives to the standard statistical descriptors of crime, a methodological review and critique of a sample of criminal justice evaluation reports, and an effort to statistically model and forecast crime rates and detect shifts in trends.

#### *Fiscal Year 1980 Plans*

In FY 1980 the Office plans to examine the research supported in the first 3 years of funding (FY 1977–FY 1979). The review will assess the program's contribution to solving applied problems in criminal justice evaluations and its success in attracting competent new scholars and established criminal justice researchers to the field. One solicitation will be issued for this research review.

#### *Office of Program Evaluation—Lawrence A. Bennett; Director*

The Office of Program Evaluation designs, funds, and administers evaluations of national-level LEAA programs, innovative and experimental projects and programs at the state and local level, selected criminal justice techniques and procedures, and significant state and local legislative or administrative reforms. The Office is responsible for evaluations of LEAA demonstration programs and field tests sponsored by the National Institute, as well as other evaluation priorities.

#### *LEAA Demonstration Programs*

LEAA supports many national-level programs designed to demonstrate the effectiveness of various concepts and methods to reduce crime and improve criminal justice. The Office of Program Evaluation funds evaluations of a select number of these programs each year.

The Office currently is sponsoring national evaluations of the LEAA Community Anti-Crime Program, which supports community organizations operating independently of state and local governments and agencies; the LEAA Comprehensive Crime Prevention

Program, which supports coordinated anticrime efforts by various agencies and community groups; the Integrated Criminal Apprehension Program which integrates and directs police field activities related to crime prevention, detection, and investigation based on systematic data collection and analysis; the antifencing program known as Sting; and the White-Collar Crime Program.

#### *Fiscal Year 1980 Plans*

Approximately four national evaluations of LEAA discretionary or national priority programs are anticipated in FY 1980. Among the programs under consideration for evaluation are:

- *Jail Overcrowding and Pre-Trial Detainees.* This program concentrates LEAA's past research and training efforts related to jails into a cohesive package that can be utilized by selected jurisdictions facing a "jail crisis."
- *Arson.* This program involves anti-arson efforts at the state, county, and local levels. In collaboration with LEAA's Office of Criminal Justice Programs, the Institute will provide funding for a first-phase effort to assess operations and collect baseline and outcome data in participating sites. The results will be used to design the full evaluation and to modify program operations as necessary.

#### *Field Tests*

The Office of Program Evaluation also conducts evaluations of experimental programs that are designed and implemented by the Institute's Office of Development, Testing, and Dissemination. Program teams, made up of representatives from the Institute's research, evaluation, and testing offices, assist in designing the program. The evaluation is planned concurrently with development of the model and is conducted under the direction of the Office of Program Evaluation.

#### *Fiscal Year 1980 Plans*

Two full-scale evaluations of field tests are scheduled for funding in FY 1980. Candidates include:

- Pretrial Supervised Release
- Employment Services for Ex-Offenders

#### *Other Evaluations—Special Priority Evaluations*

The Office of Program Evaluation also sponsors evaluations of significant criminal justice programs, activities, or legislative actions at local, state, and Federal levels. Studies of this type now in progress or recently completed include evaluations of the New York State drug law, the Alaska plea

bargaining ban, Michigan and Massachusetts gun laws, a New York City court employment program, an automatic vehicle monitoring system in St. Louis, and an experimental probation program in Detroit.

#### *Fiscal Year 1980 Plans*

Candidates for special priority evaluations are nominated by an agency working group, and those selected are announced in program solicitations.

Depending upon the outcome of pending legislation to reauthorize and reorganize LEAA, the Institute's role in evaluation may be expanded. New priorities for evaluation mandated by the legislation will be announced.

#### *Office of Development, Testing, and Dissemination—Paul Cascarano, Director*

The Office of Development, Testing, and Dissemination administers the Institute's research utilization program. It reviews research results to identify findings of potential significance to practitioners, policymakers, and other researchers, and, using a variety of vehicles, transfers new knowledge to the appropriate audience.

A large part of the Office's efforts are devoted to developing and testing experimental programs through an applied research process. These efforts are part of an agencywide process, which is designed to ensure systematic development of programs based on knowledge.

The work is carried out by three Divisions:

#### *Model Program Development Division*

This unit is responsible for the research utilization program, studies of the process of change in criminal justice agencies, and the Exemplary Projects program.

#### *Mary Ann Beck, Director—Research Utilization*

The research utilization program spans several stages of the program development process. The products that grow out of each stage are used to support the Institute's testing, evaluation, and training activities. The products are also distributed directly to policymakers and practitioners as guides for planning and implementing criminal justice programs.

#### *Fiscal Year 1980 Plans*

Under an existing contract, the following will be produced:

*Program Models* are the foundation for future program development and a tool for practitioners. They synthesize research data and expert opinion,

analyze options, and discuss the advantages and limitations of each option.

In FY 1980, the Institute will produce Program Models from among the following topics: *measuring the costs of police services, investigative information systems, managing the institutional environment in corrections, practitioner's guide to cost analysis methods in corrections, assistance programs for battered spouses, improving the operations of small claims courts, grand jury operations, personnel management in statewide court systems, and centralized county offense-reporting systems.*

*Test Designs* detail the strategies for programs that are to be tested at a few carefully selected sites. Each design is developed by an interoffice working group of the Institute, chaired by Model Program Development staff.

#### *Fiscal Year 1980 Plans*

The Test Designs planned for FY 1980 are tentative pending the outcome of ongoing research and evaluation. Possible topics are *employment services for ex-offenders, alternative police response strategies, and pretrial supervised release.*

*Program Designs* are the refined models drawn from the evaluations of the field tests. The Program Designs eliminate features that produced unintended or undesired effects during the field test and highlight those that proved to be effective. In FY 1980 a program design is being developed based on results from the test of *neighborhood justice centers.*

*Research Reviews*, which draw on the findings of Institute studies, may take the form of pamphlets, journal articles, or state-of-the-art papers. So far, the studies that have been chosen for research reviews have been distilled into *Policy Briefs*—succinct documents that present the implications of particular research findings for an audience of governors and state legislators. *Policy Briefs* currently being considered for FY 1980 include the following topics: *consumer fraud, private security police, citation in lieu of arrest, and pretrial diversion.*

#### *Change in Criminal Justice*

Funded in FY 1979, this long-term, multiphase program is intended to broaden understanding of how change takes place in criminal justice. The aim of the program is to improve Institute efforts to translate research-based knowledge into policy and practice.

#### *Fiscal Year 1980 Plans*

No additional funding in this area is anticipated for the coming fiscal year.

#### *Exemplary Projects*

The Model Program Development Division also is responsible for the Exemplary Projects program, a systematic effort to tap the best experience of the criminal justice community nationwide. Outstanding projects operated by state, local, or private agencies are identified, and information on them is disseminated throughout the country.

To be considered exemplary, a project must have demonstrated consistent success in reducing crime or achieving a measurable improvement in the operation of a criminal justice agency, as shown by evaluation data. Candidate projects are prescreened by Institute staff and the most promising programs are submitted in a contractor for onsite validation. The validation reports are reviewed by a board of LEAA and State Planning Agency representatives which selects the best projects for Exemplary status. Projects that receive the Exemplary award are widely publicized through descriptive brochures and detailed instruction manuals.

#### *Fiscal Year 1980 Plans*

A brochure describing the Exemplary Projects program and forms for recommending projects are available from the Model Program Development Division. The deadline for submitting project recommendations for the next round of screening will be early in 1980. The exact date will be announced through the National Criminal Justice Reference Service.

#### *Training and Testing Division—Louis Mayo, Director, Field Tests*

The Training and Testing Division has two key responsibilities: field tests of Institute-designed experiments and national training to disseminate research results.

Each year, a few carefully designed tests of model programs are conducted and evaluated at a limited number of sites—typically mid-size local government units. The Division oversees the selection of sites, implements the test design, and provides special training for key staff at the test sites.

#### *Fiscal Year 1980 Plans*

Present plans call for three field test topics to be selected in FY 1980. Possible topics are *employment services for ex-offenders, alternative police response strategies, and pretrial supervised release.*

*Training/Workshops*

The Division supports the specialized training that is provided for participants in Institute field tests. It also sponsors workshops on the results of research and experimentation.

The workshops are a vehicle for putting specific audiences in touch with research and evaluation findings of significance to them. The audiences vary: Researchers may meet to identify gaps in knowledge and directions for future research studies. Or practitioners and researchers may jointly participate in sessions that explore possible program implementation alternatives stemming from research.

*Fiscal Year 1980 Plans*

Workshops will be held on the following topics: *crime victim compensation, Community Crime Prevention, Small Business Security, and Reducing Stress in Correctional Institutions.*

*Host Program*

The Host program gives officials seriously interested in implementing a new program the opportunity to learn about it first-hand. Participants spend up to 2 weeks at the home sites of selected "host" Exemplary projects, in preparation for transferring all or part of the program to their own communities.

*Reference and Dissemination Division—Paul Estaver, Acting Director*

This Division supervises the operation of the National Criminal Justice Reference Service and the Equipment Standards and Technology Program, maintains the LEAA library, and manages the publication program of the National Institute.

*Reference Service*

The National Criminal Justice Reference Service, an international clearinghouse, is the Federal information resource center for criminal justice researchers and practitioners.

Through a wide range of distribution and notification services, the Reference Service informs more than 42,000 subscribers of the latest research and operating experience in criminal justice. Its computerized data base can provide quick response to individual queries on criminal justice topics. A limited number of single copies of National Institute, LEAA, and other selected publications are provided free to subscribers.

For further information and registration details, write: National Criminal Justice Reference Service, Box 6000, Rockville, MD 20850.

*Fiscal Year 1980 Plans*

The services and products presently offered by the Reference Service under an existing contract will continue in FY 1980.

*LEAA Library and Institute Publications*

The Division also maintains the LEAA Library whose special collection serves as a resource for LEAA staff and the public.

In addition to publishing and distributing Institute research and program documents, the Institute's inhouse publications program produces specialized information products including brochures, journal articles, the *Program Plan*, the *Annual Report*, the *Research Bulletin*, the *Research Briefs* (a special section in the *LEAA Newsletter*), and a new monograph series entitled "Criminal Justice Perspectives." In 1979, the first issue of *Crime and Justice*, an annual review of criminal justice research, was published under Institute auspices.

*Fiscal Year 1980 Plans*

Support for the annual review of criminal justice research is expected to continue in fiscal year 1980.

*Equipment Standards*

Because equipment is a major budget item for law enforcement agencies, the Division also supports testing of particularly significant equipment items and dissemination of the results. The *Equipment Technology Center*, operated by the International Association of Chiefs of Police with Institute support, supervises the testing process and publishes performance reports to help law enforcement agencies make sound purchasing decisions. A corollary effort is the ongoing *Law Enforcement Standings Laboratory (LESL)* established at the National Bureau of Standards. It serves as the Institute's scientific laboratory in researching and developing performance standards for selected items of law enforcement and criminal justice equipment. The standards support the work of the Equipment Technology Center and also are published and disseminated directly to criminal justice purchasing agents and other interested persons.

*Fiscal Year 1980 Plans*

Plans call for testing at least six items of equipment and developing additional standards in FY 1980 under the existing program.

[FR Doc. 79-36704 Filed 11-28-79; 8:45 am]  
BILLING CODE 4410-18-M

*Office of the Attorney General*

[Attorney General Order No. 863-79]

*Cincinnati Post and Cincinnati Enquirer, Approval of Joint Operating Agreement*

November 26, 1979.

Findings of the Attorney General on the Application of the Cincinnati Post and the Cincinnati Enquirer for Approval by the Attorney General of a Joint Newspaper Operating Agreement.

*Findings of Fact and Conclusions of Law*

1. I have reviewed the hearing record, the examiner's recommendation and the exceptions and responses filed with respect thereto. 28 C.F.R. 48.13(b), .14(a) (1978).

2. I am adopting all undisputed findings of fact and all disputed findings of fact except for No. 172, and the following portions of Nos. 12, 256 and 280: No. 12, the last sentence from "Thus" to "reader."; No. 256, "the diversion of circulation department man-hours on the ill-fated Valu-Saver project"; and No. 280, "but it is a reasonable inference that the Post's circulation would have been higher if these problems had been brought under control."

3. The findings of fact which I have not adopted are not necessary to support the ultimate conclusion. Even if these findings of fact were adopted, the ultimate decision in this matter would remain the same.

4. The following Conclusions of Law, and the analysis necessary to such Conclusions, are adopted:

A. The Cincinnati Post, considered regardless of its ownership or affiliations, is in probable danger of financial failure (15 U.S.C. 1802(5)).

B. The Cincinnati Post is a failing newspaper (15 U.S.C. 1802(5)).

C. Approval of the joint operating agreement will effectuate the policy and purpose of the Act (15 U.S.C. 1801, 1802(2), 1803(b)).

The Application For Approval of the Joint Operating Agreement Between the Cincinnati Enquirer and the Cincinnati Post is hereby approved. This approval shall become effective on the tenth day after the filing of this decision. 28 CFR 48.14(b) (1978).

Benjamin R. Civiletti,  
Attorney General.

[FR Doc. 79-36770 Filed 11-28-79; 8:45 am]  
BILLING CODE 3510-25-M

## LEGAL SERVICES CORPORATION

### Publicity of Special Awards To Serve Eligible Native Americans Who Are Members of Terminated and Non-recognized Tribes

November 26, 1979.

**AGENCY:** Legal Services Corporation, 733 15th St. N.W., Suite 700, Washington, D.C. 20005.

#### Background

The Legal Services Corporation through its Indian Desk has traditionally funded special Indian legal services only for eligible Native Americans who are members of BIA recognized tribes. The Corporation has not until now funded special Indian legal services for eligible Native Americans who are members of "terminated" or "non-recognized" tribes. Eligible members of terminated and non-recognized tribes have had to receive legal services from regular legal services programs.

In 1978 the Office of Field Services of the Legal Services Corporation began a re-examination of its funding policies concerning Native Americans, particularly as they relate to members of terminated and non-recognized tribes. At the same time the Research Institute of the Corporation in its study of access of Native Americans to legal services (the 1007(h) Study) also began an examination of problems of access to legal services by members of terminated and non-recognized tribes.

The 1007(h) Study recommended continuation of special programs for eligible members of federally recognized tribes funded through the Indian Desk. The 1007(h) Study additionally recommended that special programs also be extended to members of terminated and non-recognized tribes residing on or near their reservations, former reservations or traditional homelands. Consistent with the 1007(h) Study recommendation and as part of its own policy re-examination the Office of Field Services of the Legal Services Corporation announces the availability of a \$400,000 discretionary fund to serve eligible members of terminated and non-recognized tribes who reside on or near their reservations, former reservations or traditional homelands. These funds will be awarded for one to three year terms, and are intended to supplement, not replace, any existing services currently provided.

#### Definitions

The Legal Services Corporation defines Native Americans as the descendants of the Native inhabitants of continental United States, Alaska, and

Hawaii. This definition includes those persons who are considered American Indians, Hawaiian Natives, Eskimos, and Aleuts.

The Legal Services Corporation defines a recognized tribe as a tribe which is currently recognized by the Bureau of Indian Affairs as a tribe, band or group of Native Americans, to which the United States acknowledges a trust responsibility. A terminated tribe is defined as a tribe, band, or group that the Bureau of Indian Affairs has previously recognized, but whose recognition was subsequently terminated by Congress and has not been restored. A non-recognized tribe is a tribe, band or group of Native Americans who have not been recognized as eligible for services by the Bureau of Indian Affairs.

The Bureau of Indian Affairs has established criteria and procedures for obtaining federal recognition. See 43 FR 39361 (Sept. 5, 1978), 25 CFR Part 54. The regulations condition recognition in large part on a showing of continuous Indian identity. The recognition regulations state factors which bear on a showing of Indian identity including "Repeated identification by federal authorities", "long-standing relationships with state governments based on identification of the group as Indians"; and, "repeated dealing with a \* \* \* local government \* \* \* based on the group's Indian identity". In order for members of a non-recognized tribe of Indians to be considered eligible for special funding from the Corporation, the tribe must meet one or more of these criteria for recognition.

The Corporation's funds to serve eligible members of terminated and non-recognized tribes will be available each year beginning January 1, 1980, and can be used for one to three year term projects to address the legal problems of members of terminated and non-recognized tribes arising from their status as members of terminated and non-recognized tribes. Inasmuch as the funds are for projects of specific duration, there is no right to refunding beyond the term of the project, although exemplary projects may be considered for extension of funding for a specific time.

#### Eligibility

In order to receive these funds, an organization must agree to comply with all Legal Services Corporation rules and regulations, including those concerning the structure of the board of directors. An organization need not currently receive Legal Services Corporation funds to apply for these funds.

#### Notice

Notice of the availability of the funds to serve eligible members of terminated or non-recognized tribes shall be provided to the following persons, organizations, groups or tribes:

- (1) The governing body or spokesperson of all non-recognized and terminated tribes listed in Volume I of the American Indian Policy Review Commissions (AIPRC) Final Report;
- (2) All non-recognized tribes who have filed petitions for recognition with the Bureau of Indian Affairs;
- (3) All legal services programs in states which have terminated and non-recognized tribes according to the AIPRC Final Report;
- (4) The Governor and Chairperson of the State Bar Association of each state where a terminated or non-recognized tribe is located according to the AIPRC Final Report;
- (5) The State Advisory Council;
- (6) The National Clients Council office for the region; and
- (7) All persons, organizations, or groups who have expressed an interest to the Corporation in receiving information or applying for these funds.

The Corporation will publish in at least one newspaper of general statewide circulation notice of the availability of these funds where a terminated or non-recognized tribe is located. Finally the Corporation will publish for informational and notice purposes only, a copy of these procedures and criteria in the **Federal Register**.

#### Contents of Proposals

Proposals for awards from this discretionary fund must address the status related legal problems of members of terminated and non-recognized tribes. All proposals for funds to serve eligible members of terminated and non-recognized tribes must include the following information:

- (1) A description of the applicant organization including the status of its compliance or proposed compliance with Section 1007 of the Legal Services Corporation Act and Part 1607 of the Corporation's regulations concerning composition of the applicant's board of directors;
- (2) A description of the terminated and non-recognized tribe or tribes to be served, including a brief history of the tribe and a showing that the tribe meets one or more of the criteria for recognition established by the BIA and previously cited in the "Definitions" section in this announcement;
- (3) A description of the unmet legal needs of the members of the terminated

and non-recognized tribe with respect to status related legal problems;

(4) A plan (including timetable) to address these unmet legal needs (specify the term of the proposed project);

(5) A budget;

(6) A statement from the governing body or representatives of the tribe, tribes or groups to be served indicating they have been consulted and their comments have been solicited in the development of the proposal.

(7) If the applicant does not presently serve members of the tribe or group, a statement that any LSC funded program serving eligible members of the tribe or group has been informed and consulted concerning the application.

Any funds awarded a current LSC recipient to provide service to eligible members of terminated and non-recognized tribes will have conditions which require (1) separate accounting for the funds to the Corporation's Denver Regional Office and (2) the creation of an Indian Advisory Board from the affected tribes or groups to coordinate implementation of the project.

Any questions and proposals should be sent to: Indian Desk, Legal Services Corporation, Denver Regional Office, 1726 Champa Street, Suite 500, Denver, Colorado 80202, (303) 837-5981.

The proposals for programs to commence in 1980 must be postmarked by the United States Postal Service on or before Friday, January 25, 1980. Before any proposal is drafted, the Legal Services Corporation Act and the Corporation's regulations should be carefully reviewed. Copies of the Corporation's Act and Regulations are available at the above address.

Dan Bradley,

President, Legal Services Corporation.

[FR Doc. 79-36781 Filed 11-29-79; 8:45 am]

BILLING CODE 6820-35-M

## NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

[Notice 79-96]

### Intent to Grant Exclusive Patent License

Notice is hereby given that consideration is being given to the grant to Nedlog Technology Group, Arvada, Colorado, of a limited, exclusive, revocable license to practice the invention described in U.S. Patent No. 4,146,367 for "Coal Desulfurization", issued on March 27, 1979, to the Administrator of the National Aeronautics and Space Administration on behalf of the United States of

America. The proposed exclusive license will be for a limited number of years and will contain appropriate terms and conditions to be negotiated in accordance with the NASA Patent Licensing Regulations, 14 CFR 1245.2, as revised April 1, 1972. NASA will negotiate the final terms and conditions and grant the exclusive license unless, within 30 days of this Notice, the Chairperson, Inventions and Contributions Board, NASA, Washington, D.C., 20546, receives in writing any of the following, together with supporting documentation: (i) a statement from any person setting forth reasons why it would not be in the best interest of the United States to grant the proposed exclusive license; or (ii) an application for a nonexclusive license under such invention, in accordance with § 1245.206(b) in which applicant states that applicant has already brought or is likely to bring the invention to practical application within a reasonable period. The Board will review all written responses to the Notice and then recommend to the Administrator whether to grant the exclusive license.

Dated: November 29, 1979.

S. Neil Hosenball,  
General Counsel.

[FR Doc. 79-36705 Filed 11-29-79; 8:45 am]

BILLING CODE 7510-01-M

## NATIONAL TRANSPORTATION SAFETY BOARD

[N-AR 79-48]

### Reports, Safety Recommendation Letters and Responses; Availability Safety Effectiveness Evaluation

*Case History of Federal Motor Vehicle Safety Standard 208: Occupant Crash Protection.*—The National Transportation Safety Board on November 21 released Volume II of its safety effectiveness evaluation of the National Highway Traffic Safety Administration's rulemaking process. Evaluation of NHTSA's safety effectiveness was requested of the Safety Board by the House Committee on Public Works and Transportation, and, on September 11, the Safety Board in fulfillment of that request issued a similar factual report in its "Case History of Federal Motor Vehicle Safety Standard 121: Air Brake Systems." (See 44 FR 54559, September 20, 1979.) A third case history is planned on a representative sample of current NHTSA safety standards under development. This will be followed by a

safety effectiveness evaluation of NHTSA, to be published in 1980.

Volume II, report No. NTSB-SEE-79-5, specifies injury criteria and testing procedures which must be met by vehicle restraint systems. The report describes the sequence of events associated with the development and implementation of Federal Motor Vehicle Safety Standard (FMVSS) 208. The Safety Board notes that the focus of FMVSS 208 has been the concept of passive, or automatic, restraint—protective devices which require no action on the part of the vehicle occupant. Rulemaking and associated activity concerning passive protection began in July 1969 and has continued to the present day. Mandatory passive restraint requirements are currently due to begin being phased in for passenger cars in September 1981.

The standard has proven highly controversial, and much of the debate on the rule has centered around one particular type of passive restraint—the "air bag." The controversy has generated a large volume of material during the standard's 10-year history, including research and development studies, public hearings, Congressional review, dozens of evaluative reports, and two major court cases.

### Marine Accident Report

*Collision of American Containership SS SEA-LAND VENTURE and Danish Tanker N/T NELLY MAERSK, Inner Bar Channel, Galveston, Texas, August 27, 1978.*—The Safety Board on November 15 made available copies of its formal investigation report on this accident, which was investigated jointly by the Safety Board and the U.S. Coast Guard. A formal investigation was convened in Galveston on August 30, 1978.

Investigation showed that the SEA-LAND VENTURE collided with the NELLY MAERSK when the SEA-LAND VENTURE attempted to overtake the NELLY MAERSK in the Galveston-Houston Ship Channel. There were no injuries or deaths. Damage to the vessels was estimated at \$1.4 million.

The Safety Board determined that the probable cause of the accident was the inaccurate evaluation of the closing rate and late initiation of the rudder order by the pilot of the SEA-LAND VENTURE while attempting to overtake the NELLY MAERSK at a bend in a narrow channel where the risk of collision was much greater than in a straight portion of the channel.

As a result of its investigation of this accident, the Safety Board on November 9 recommended that the U.S. Coast Guard issue a regulation to prohibit

deep-draft vessels overtaking or meeting each other at the bends in the channels when traversing the Galveston-Houston Ship Channel (M-79-112) and require helmsmen in the U.S. Merchant Marine to inform the officer in charge of the navigation of the vessel when rudder orders have been executed, in addition to the present practice of repeating them as they are given (M-79-113).

Also on November 9 the Safety Board recommended that the Galveston-Texas City Pilots Association and the Houston Pilots Association require member pilots piloting deep-draft vessels to refrain from overtaking or meeting other vessels at the bends in the Galveston-Houston Ship Channel (M-79-114) and that the Galveston-Texas City Pilots Association, the Houston Pilots Association, and the American Pilots Association require member pilots to confer with ships' masters on any maneuvering agreements made over the radio telephone well in advance of the execution (M-79-115). (See also 44 FR 67255, November 23, 1979.)

#### Safety Recommendation Letter

*A-79-85 to the Federal Aviation Administration.*—Last April 18 a Sikorsky S-61L helicopter crashed at Newark (N.J.) International Airport. The Safety Board determined that the probable cause of the accident was the separation of the tail rotor assembly and gearbox from the aircraft at an altitude which made further controlled flight impossible. The rotor assembly and gearbox separated because of severe vibrations in the rotor assembly which were induced by the loss of a tail rotor blade due to fatigue failure. Metallurgical examination of the blade's spar revealed a fatigue fracture across 90 percent of its cross section 35 inches from the outboard end. The blade is designed and manufactured so that the spar is completely enclosed in an aluminum skin envelope, thereby making visual inspection of the spar impossible.

The Safety Board notes that the Sikorsky S-58 model helicopter uses a tail rotor blade identical in design to the S-61L model blade, although dimensionally it is smaller in the spanwise direction. The Board learned that one tail blade spar failure has occurred recently on an S-58T model helicopter in South America. Loss of a section of blade on the S-58 results in the same conditions that occurred on the S-61L at Newark, N.J. In view of these findings, the Safety Board on November 19 recommended that FAA:

Issue an Airworthiness Directive to require a one-time ultrasonic inspection of tail rotor blades installed on S-58 and S-58T model

helicopters for evidence of spar cracks and, if necessary, establish a recurring spar inspection based on an appropriate number of operating hours. (Class I, Urgent Action) (A-79-85)

#### Responses to Safety Recommendations

##### Highway

*H-78-55.*—The Federal Highway Administration on November 6 supplemented its initial response of last February 7 (44 FR 15817, March 15, 1979) by providing the Safety Board with advance copies of FHWA Notice N 5160.32, "Vehicle Detector Placement for High-Speed, Isolated Traffic-Actuated Intersections," dated October 29, 1979. The purpose of the notice is to emphasize the importance of vehicle detector placement for high-speed, isolated traffic-actuated intersection control and to ensure that States and local jurisdictions are aware of the techniques and the availability of instructional material on this subject matter.

The recommendation was issued following investigation of the July 21, 1977, collision involving a dump truck and an automobile at the signalized intersection of U.S. 50 and Virginia 28 near Chantilly, Va., and called on FHWA to sponsor regional seminars to inform and train personnel responsible for traffic signal design and operation regarding the research results promulgated in reports FHWA RD-77-31 and DOT-FH-11-8783. Notice N 5160.32 states that as its response to the Safety Board's recommendation, GHWA plans to have division office representatives meet and hold discussions with personnel of appropriate State agencies, in lieu of formal training sessions, since information on this subject has already been disseminated among the States and the research report contains a self-teaching course. Discussion should delve not only into existing technology and available instructional material on the subject but also the States' present and planned utilization of this technology.

The Safety Board on March 1 acknowledged FHWA's February 7 response and expressed appreciation of FHWA's efforts to disseminate traffic signal control information through research reports, FHWA handbooks, and through joint efforts with the Institute of Transportation engineers. FHWA was encouraged to further emphasize its report RD-77-31. The Board also noted that FHWA's response stressed the training provisions of the "402" highway safety program, and, with reference to FHWA's January 19, 1979 response to recommendation H-77-41

(44 FR 8045, February 8, 1979), the Board noted FHWA's request to discuss with the Board the application of the traffic engineering manpower development programs portion of the 402 Standard No. 13, "Traffic Engineering Services." The Safety Board expressed its vital concern with the continued training of personnel involved in highway design, operations, construction, and maintenance. This training is an important part of highway safety.

##### Marine

*M-79-48.*—Letter of November 7 from Bethlehem Steel Corporation is in response to a recommendation issued last April 17 following investigation of the capsizing and sinking of the self-elevating mobile offshore drilling unit OCEAN EXPRESS near Port O'Connor, Texas, April 15, 1976. The recommendation asked Bethlehem Steel to equip its future self-elevating mobile offshore drilling units with towing fittings accessible in heavy weather. (See 44 FR 24657, April 26, 1979.)

In response Bethlehem states, "We disagree with the findings and conclusions concerning the accessibility of the towing fittings and in particular, the statement 'If the towing padeyes had been more accessible, the GULF VIKING probably could have been reconnected, and the capsizing might have been prevented,' (italics added) as being nothing more than rank speculation." Bethlehem notes that the OCEAN EXPRESS is a duplicate of a number of mobile drilling units, all of which have been equipped with the same basic towing arrangement, and further states, "Prudent operators arrange an emergency towing line connected to these same fittings and suspend it from the heliport where it can be lowered for retrieval by the towing vessel in the event that a main tow line parts. The failure by the operator of the OCEAN EXPRESS to equip his unit with this safety measure indicates a lack of seamanship more than anything else."

Due to the successful operation of the other mobile units of this same design, Bethlehem does not consider a change based solely on the manner in which the owner of the OCEAN EXPRESS operated its unit to be warranted. Although Bethlehem's position is as asserted above, the company is however offering to purchasers of new mobile drilling units the installation of "emergency" tow bits on a deck above the main deck. Such bits will be installed at the option of the purchaser, Bethlehem stated.

*M-79-56.*—The U.S. Coast Guard on November 6 responded to a recommendation developed following

investigation of the collision of the S/S PENNSYLVANIA and the M/V WORLD NOBILITY (Liberian) at the mouth of the Chesapeake Bay near Norfolk, Va., December 29, 1978. The recommendation asked Coast Guard to develop navigation watchkeeping standards which quantify the minimum manning level needed for large oceangoing vessels to safely navigate within U.S. ports and their approaches, and to amend the Navigation Safety Regulations (33 CFR Part 164) to incorporate these standards. (See 44 FR 34224, June 14, 1979.)

Coast Guard, concurring with this recommendation in part, states that it is now developing minimum manning levels for foreign tank vessels which operate on or enter U.S. navigable waters, and which carry oil or any hazardous materials in bulk as cargo or in residue. The regulatory project is under docket number CGD 79-081 and should become effective in late 1980. Coast Guard states that although this regulatory project applies to tank vessels, minimum watchkeeping principles (which in effect quantify the minimum number of persons required to safely navigate all types of vessels) is contained in the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW). This convention has been adopted by the International Conference of Training and Certification of Seafarers, 1978, and is now in process of ratification by world states. Coast Guard notes that 33 CFR Part 164 presently contains watchkeeping standards for self-propelled vessels of 1,600 or more gross tons when operating in or on the navigable waters of the United States, and Coast Guard feels that further development of the Navigation Safety Regulations concerning manning levels would be inappropriate considering the international action being taken by STCW-1978 and the minimum manning levels being developed under regulatory project CGD 79-081.

#### Railroad

*R-78-43 through 47.*—Federal Railroad Administration letter dated November 2, 1979, responds to recommendations issued July 31, 1978, following investigation of the Louisville & Nashville Railroad Company freight train derailment and puncture of anhydrous ammonia tank cars at Pensacola, Fla., November 9, 1977. (See 43 FR 35563, August 10, 1978.)

Recommendation R-78-43 asked FRA to include in its review of its current track safety standards investigation and testing to determine if the 4-foot 8-inch

minimum gage allowed in curved track according to 49 CFR 213.53 is appropriate for 6-axle locomotive units and cars. FRA states that its review of track safety standards did not address the specific question of 6-axle vehicle performance as it related to minimum track gage (56 inches) permitted under 49 CFR 213.53. A review of the results of thousands of miles of Automated Track Inspection Program inspections showed that "tight" gage on curved or tangent track was not a general problem, although in the Pensacola accident the curve at the accident site was found to have "tight" gage which was below the FRA 56-inch minimum. FRA states that if new rail had been laid to replace worn rail without proper attention to gage, it is possible for the gage to be less than the minimum. A locomotive with new wheels could then exert higher than normal forces on the track. FRA is reviewing motive power and equipment standards which will include an examination of wheel mounting dimensions as they relate to track gage. Any problems FRA has seen to date, however, are directly related to either improper wheel mounting, mismatched wheel sets or improper track gaging, and there should be no problem with 4- or 6-axle equipment when wheel and track work are properly performed.

In response to recommendation R-78-44, which called for regulations to require locomotives used in trains on main tracks outside of yard limits to be equipped with operating event recorders, FRA states that as indicated at 44 FR 29610, May 21, 1979, locomotive speed recorders perform a number of useful functions related to operational safety. FRA notes that output from a recorder can assist in the reconstruction of an accident and the determination of its cause, and that locomotive event recorders which record events such as brake applications and throttle settings in addition to speed can be particularly helpful in this regard. FRA says it has felt for many years that the safety benefits of speed recorders are not sufficiently immediate and direct to warrant the expenditures which would be required to equip the remaining nonequipped locomotives, repair inoperative units, conduct periodic maintenance and arrange for the storage and analysis of data.

With respect to R-78-45, which recommended that FRA investigate and test to determine the adequacy of the total uncontrolled lateral motion allowed in 49 CFR 230.220 when related to lateral forces developed on rails by 6-axle locomotive units or by 6-axle cars in curves of more than 2°, FRA notes

that in June 1977 FRA, with the cooperation of the Association of American Railroads (AAR), conducted a series of tests on the SDP-40-4 locomotive utilized by the Chessie System. Test runs were made with increased lateral clearances on the 6-axle trucks used on these units, and results clearly indicated that the increase in lateral motion at the locomotive journal boxes did not reduce the lateral forces. In fact, FRA states, there was no change in the magnitude of the lateral forces when the lateral clearance was increased by ½-inch at each box—a total of ½ inch above the maximum lateral clearance permissible under current regulations. FRA states, "The joint tests conducted by the FRA and the AAR have proven that further investigation of this subject is unwarranted."

In response to R-78-46, which called for regulations to require railroads to limit the length and tonnage of trains carrying hazardous materials to train makeup principles developed under the track train dynamic program, FRA says that in accordance with section 10 of the Federal Railroad Safety Authorization Act of 1978, FRA is currently utilizing the train operations simulation model to analyze train makeup and train handling procedures. This simulation will determine possible track locations, train consists, and operating practices which are potentially hazardous, but regulatory action cannot be implemented until the simulation and the track train dynamic testing program can be made more representative of day-to-day railroad operating procedures. The safe operation of a train is a conglomerate of different factors, i.e., the makeup of the train, track conditions, the curvature of the track, the ruling grade and other variables. FRA notes. At the present state-of-the-art, FRA is unable to translate railroad operational variables quantitatively into a methodology necessary for promulgation of a regulation limiting the length and tonnage of train consists at this time.

Recommendation R-78-47 asked FRA to require railroads to provide pertinent hazardous materials emergency information on waybills and to make this information available to public emergency personnel. In response, FRA says it believes that the present regulations are designed to provide the pertinent hazardous materials emergency information on waybills. FRA notes that 49 CFR 174.26(c) provides that a crewmember of a train transporting hazardous materials must have in his possession a copy of the shipping papers showing the proper

shipping name of the materials, the hazard class, the total quantity, the placard notation, and the placard endorsement; also most shipping papers for hazardous materials contain an emergency telephone number where further information can be obtained. The shipping papers (waybills) are available to public emergency personnel. FRA states, "The efficiency with which emergencies are handled by public emergency personnel depends on the experience and training of the personnel. The printing of detailed instructions for procedures to cope with an emergency under every conceivable situation is neither practical nor beneficial."

*R-79-68 through 70.*—On October 23 National Railroad Passenger Corporation (Amtrak) responded to recommendations issued following investigation of the head-end collision of a passenger train and a track machine which occurred last April 20 at Edison, N.J. (See 44 FR 65828, November 15, 1979.)

Recommendation R-79-38 asked Amtrak to conduct an audit of its train operations to determine the extent of the problem of noncompliance with its operating rules and instructions and provide the Board with a report of its findings. Amtrak reports that a review of its Efficiency and Safety Test Program from July 1, 1978, through September 24, 1979, reveals that of 23,891 tests of train and engine service employees, there were 286 failures (.011%), and of 11,219 tests of train dispatchers and operators, there were 356 failures (.035%).

In response to R-79-69, which called on Amtrak to provide improved supervision to plan and monitor the movement of insulated track machines that do not activate the protection of the automatic block signal system on the Northeast Corridor, Amtrak reports establishing a block operators school on each division on the Northeast Corridor for new hires. The new hire attends classes for a full month, then must pass a special examination similar to the one Amtrak now gives the Maintenance of Way foremen. In 1980, Amtrak has already programmed classes for existing block operators. All of this is designed in part to insure the safe movement of all Maintenance of Way insulated equipment as well as trains.

Recommendation R-79-70 asked Amtrak to establish procedures to require that pilots employed in the movement of track machines be fully experienced with all rules and instructions relating to such movements. Amtrak notes that its Book of Operating Rules defines a pilot as an employee

assigned to a train when the engineman, conductor, or track car driver is not qualified on the physical characteristics or rules of the railroad or portion of the railroad over which the movement is to be made. Also, instructions of Amtrak's MW Department, dated October 4, 1977, require machine operators to be qualified on Book of Operating Rules and be qualified on the physical characteristics of the railroad on which they are required to work. Further, prior to the effective date of Amtrak's Book of Operating Rules, 880 MW foremen attended three-day classes and were required to pass a written examination or they were not permitted to work as a foreman, until they passed.

**Note.**—Single copies of the Safety Board's reports are available without charge, as long as limited supplies last. Copies of recommendation letters issued by the Board, response letters and related correspondence are also provided free of charge. All requests for copies must be in writing, identified by report or recommendation number. Address inquiries to: Public Inquiries Section, National Transportation Safety Board, Washington, D.C. 20594.

Multiple copies of reports issued by the Safety Board may be purchased from the National Technical Information Service, U.S. Department of Commerce, Springfield, Va. 22151.

(49 U.S.C. 1903(a)(2), 1906)

**Margaret L. Fisher,**  
*Federal Register Liaison Officer.*  
November 23, 1979.

[FR Doc. 79-36763 Filed 11-28-79; 8:45 am]

**BILLING CODE 4910-58-M**

## OFFICE OF MANAGEMENT AND BUDGET

### Agency Forms Under Review

#### Background

November 26, 1979.

When executive departments and agencies propose public use forms, reporting, or recordkeeping requirements, the Office of Management and Budget (OMB) reviews and acts on those requirements under the Federal Reports Act (44 USC, Chapter 35). Departments and agencies use a number of techniques including public hearings to consult with the public on significant reporting requirements before seeking OMB approval. OMB in carrying out its responsibility under the Act also considers comments on the forms and recordkeeping requirements that will affect the public.

#### List of Forms Under Review

Every Monday and Thursday OMB publishes a list of the agency forms

received for review since the last list was published. The list has all the entries for one agency together and grouped into new forms, revisions, extensions, or reinstatements. Each entry contains the following information:

- The name and telephone number of the agency clearance officer;
- The office of the agency issuing this form;
- The title of the form;
- The agency form number, if applicable;
- How often the form must be filled out;
- Who will be required or asked to report;
- An estimate of the number of forms that will be filled out;
- An estimate of the total number of hours needed to fill out the form; and
- The name and telephone number of the person or office responsible for OMB review.

Reporting or recordkeeping requirements that appear to raise no significant issues are approved promptly. In addition, most repetitive reporting requirements or forms that require one half hour or less to complete and a total of 20,000 hours or less annually will be approved ten business days after this notice is published unless specific issues are raised; such forms are identified in the list by an asterisk(\*).

#### Comments and Questions

Copies of the proposed forms and supporting documents may be obtained from the agency clearance officer whose name and telephone number appear under the agency name. Comments and questions about the items on this list should be directed to the OMB reviewer or office listed at the end of each entry.

If you anticipate commenting on a form but find that time to prepare will prevent you from submitting comments promptly, you should advise the reviewer of your intent as early as possible.

The timing and format of this notice have been changed to make the publication of the notice predictable and to give a clearer explanation of this process to the public. If you have comments and suggestions for further improvements to this notice, please send them to Stanley E. Morris, Deputy Associate Director for Regulatory Policy and Reports Management, Office of Management and Budget, 726 Jackson Place, Northwest, Washington, D.C. 20503.

#### DEPARTMENT OF AGRICULTURE

Agency Clearance Officer—Richard J. Schrimper—447-6201

#### New Forms

Forest Service

\*YCC Long-Term Benefits Evaluation

Other (see SF-83)  
YCC Applicants & Parents of YCC  
Applicants  
3,400 responses; 1,700 hours  
Charles A. Ellett, 395-5080

## DEPARTMENT OF COMMERCE

Agency Clearance Officer—Edward  
Michals—377-3627

*New Forms*

Bureau of the Census  
Cultural Familiarity Questionnaire  
D-263A  
Single time  
Job applicants  
1,200,000 responses; 60,000 hours  
Richard Sheppard, 395-3211

*Reinstatements*

Bureau of the Census  
Annual Demographic Survey—March  
1979  
CPS-1, CPS-665  
Annually  
66000 HHLDS in 3/80 CPS & 2500 Span.  
Amer. HHLDS From 11/79  
68,500 responses; 28,565 hours  
Off. of Federal Statistical Policy &  
Standard, 673-7974

## DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Agency Clearance Officer—William  
Riley—245-7488

*Extensions*

Social Security Administration  
Supplemental Security Income—Quality  
Assurance Case  
Review Analysis  
SSA-8508  
On occasion  
Beneficiaries Receiving Title XVI  
Payments  
55,000 responses; 27,500 hours  
Barbara A. Young, 395-6132

*Reinstatements*

Health Care Financing Administration  
(departmental)  
\*Summary Fraud and Abuse Report  
Forms  
HCFA-52, 53, & 54  
Quarterly  
Medicaid St. Agen. Med. St. Fraud Units  
Prog. Integ. RO'S  
636 responses; 318 hours  
Richard Eisinger, 395-3214

## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Agency Clearance Officer—Robert G.  
Masarsky—755-5184

*New Forms*

Policy Development and Research  
Market Generated Displacement

Single time  
Households in 3 cities  
1,000 responses; 480 hours  
Arnold Strasser, 395-5080

## DEPARTMENT OF LABOR

Agency Clearance Officer—Philip M.  
Oliver—523-6341

*New Forms*

Occupational Safety and Health  
Administration  
Cadmium Questionnaire  
OSHA-152T  
Single time  
Manufacturers & Indust. Users of  
Cadmium in Maj. Use SIC's 50  
responses; 400 hours  
Arnold Strasser, 395-5080

*Extensions*

Bureau of Labor Statistics  
\*Form Letters Requesting Collective  
Bargaining Agreements and Related  
Information  
BLS-2451 BLS 2452 BLS 2453  
On occasion  
Parties to Collective Bargaining  
Agreements 3,500 responses; 350  
hours  
Arnold Strasser, 395-5080

## DEPARTMENT OF TRANSPORTATION

Agency Clearance Officer—Bruce H.  
Allen—426-1887

*Revisions*

Federal Highway Administration  
\*Loadshift Information Form  
MCS-10  
On occasion  
Interstate Commercial Motor Carriers  
180 responses; 45 hours  
Steed, Diane K., 395-3176

## EXECUTIVE OFFICE OF THE PRESIDENT, OTHER

Agency Clearance Officer—Gregory  
Jones—456-6226

*New Forms*

Consumer Affairs Council  
Consumer Response Checklist for E.O.  
12160; E.O. 12160<sup>1</sup>  
Compliance Checklist  
Single time  
Consumers 10,000 responses; 5,000 hours  
C. Louis Kincannon, 395-3772

<sup>1</sup> Use of this form already has been approved through January 1981 to encourage timely and constructive public comment on the adequacy of the draft consumer programs that agencies are required to publish under E.O. 12160, "Providing for Enhancement and Coordination of Federal Consumer Programs." The approved forms are entirely voluntary and impose modest average and total reporting burden. Any comments received will be carefully considered to the extent feasible in using or revising the form.

## NATIONAL CREDIT UNION ADMINISTRATION

Agency Clearance Officer—Bernard  
Snelnick—254-9835

*Revisions*

\*Monthly Sample (Federal) Monthly  
Sample (State)  
NCUA 5301 & 5303  
Monthly  
Federal and State Credit Union 14,400  
responses; 2,400 hours  
Marsha D. Traynham, 395-6140

## VETERANS ADMINISTRATION

Agency Clearance Officer—R. C.  
Whitt—389-2282

*New Forms*

Automotive and Adaptive Equipment  
Evaluation  
Single time  
Vets in receipt of Compensation or  
Pension 4,154 responses; 1,039 hours  
Richard Eisinger, 395-3214  
Stanley E. Morris,  
Deputy Associate Director for Regulatory  
Policy and Reports Management.

[FR Doc. 79-38794 Filed 11-29-79; 8:45 am]

BILLING CODE 3110-01-M

## RAILROAD RETIREMENT BOARD

**Determination of Quarterly Rate of Excise Tax for Railroad Retirement Supplemental Annuity Program**

In accordance with directions in Section 3221(c) of the Railroad Retirement Tax Act (26 U.S.C. § 3221(c)), the Railroad Retirement Board has determined that the excise tax imposed by such Section 3221(c) on every employer, with respect to having individuals in his employ, for each man-hour for which compensation is paid by such employer for services rendered to him during the quarter beginning January 1, 1980, shall be at the rate of twelve and one-half cents.

In accordance with directions in Section 15(a) of the Railroad Retirement Act of 1974, the Railroad Retirement Board has determined that for the quarter beginning January 1, 1980, 19.8 percent of the taxes collected under Sections 3211(b) and 3221(c) of the Railroad Retirement Tax Act shall be credited to the Railroad Retirement Account and 80.2 percent of the taxes collected under such Section 3211(b) and 3221(c) plus one hundred percent of the taxes collected under Section 3221(d) of the Railroad Retirement Tax Act shall be credited to the Railroad Retirement Supplemental Account.

By Authority of the Board.

Dated: November 19, 1979.

R. F. Butler,

Secretary of the Board.

[FR Doc. 79-36754 Filed 11-28-79; 8:45 am]

BILLING CODE 7905-01-M

## DEPARTMENT OF TRANSPORTATION

### Federal Railroad Administration

[FRA Waiver Petition Docket HS-79-22]

#### Goodwin Railroad Co.; Petition for Exemption From the Hours of Service Act

In accordance with 49 CFR 211.41 and 211.9, notice is hereby given that the Goodwin Railroad (GRI) has petitioned the Federal Railroad Administration (FRA) for an exemption from the Hours of Service Act (83 Stat. 464, Pub. L. 91-169, 45 U.S.C. (64a(e)). That petition requests that the GRI be granted authority to permit certain employees to continuously remain on duty for in excess of twelve hours.

The Hours of Service Act currently makes it unlawful for a railroad to require or permit specified employees to continuously remain on duty for a period in excess of twelve hours. However, the Hours of Service Act contains a provision that permits a railroad, which employs no more than fifteen employees who are subject to the statute, to seek an exemption from this twelve hour limitation.

The GRI seeks this exemption so that it can permit certain employees to remain continuously on duty for periods not to exceed sixteen hours. The petitioner indicates that granting this exemption is in the public interest and will not adversely affect safety. Additionally, the petitioner asserts that it employs no more than fifteen employees and has demonstrated good cause for granting this exemption.

Interested persons are invited to participate in this proceeding by submitting written views or comments. FRA has not scheduled an opportunity for oral comment since the facts do not appear to warrant it. Communications concerning this proceeding should identify the Docket Number, Docket Number HS-79-22, and must be submitted in triplicate to the Docket Clerk, Office of the Chief Counsel, Federal Railroad Administration, Nassif Building, 400 Seventh Street SW., Washington, D.C. 20590. Communications received before January 4, 1980, will be considered by the FRA before final action is taken. Comments received after that date will be considered as far as practicable. All comments received will be available for

examination both before and after the closing date for comments, during regular business hours in Room 8211, Nassif Building, 400 Seventh Street SW., Washington, D.C. 20590.

(Sec. 5, Hours of Service Act of 1969 (45 U.S.C. 64a), 1.49(d) of the regulations of the Office of the Secretary. 49 CFR 1.49(d))

Issued in Washington, D.C., on November 20, 1979.

Joseph W. Walsh,

Chairman, Railroad Safety Board.

[FR Doc. 79-36504 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-06-M

## National Highway Traffic Safety Administration

[Docket No. IP79-06; Notice 2]

#### Carlisle Tire & Rubber Co.; Grant of Petition for Determination of Inconsequential Noncompliance

This notice grants the petition by Carlisle Tire & Rubber Company of Carlisle, Pennsylvania, to be exempted from the notification and remedy requirements of the National Traffic and Motor Vehicle Safety Act (15 U.S.C. 1381 et seq.) for an apparent noncompliance with 49 CFR 571.119, Motor Vehicle Safety Standard No. 119, *New Pneumatic Tires for Vehicles Other Than Passenger Cars*. The basis of the petition was that the noncompliance is inconsequential as it relates to motor vehicle safety.

Notice of receipt of the petition was published on July 16, 1979 (44 FR 41382) and an opportunity afforded for comment.

Paragraph S6.5(f) of Standard No. 119 requires tires to be marked with "the actual number of plies and the composition of the ply cord material in the sidewall \* \* \*." Carlisle has manufactured 839 Sawtooth boat trailer tires between March 7, 1979, and March 26, 1979, stamped "4 ply nylon." The correct designation, however, is "2 ply nylon." All other information is said to be correct and petitioner believes that its noncompliance is inconsequential as it relates to motor vehicle safety since the tires meet all the performance requirements of Standard No. 119.

No comments were received on the petition.

NHTSA concurs with petitioner's assessment that the noncompliance has an inconsequential effect upon safety as all performance and all other labelling requirements are met. NHTSA understands that the tires were intended as original equipment on boat trailers and deems it likely that at this late date a substantial portion have already been sold, so that the consumer information

issue does not assume the same importance that it would have had all the tires remained in the manufacturer's possession and unsold to the ultimate purchasers. Accordingly, petitioner has met its burden of persuasion that the noncompliance herein described is inconsequential as it relates to motor vehicle safety and its petition is hereby granted.

(Sec. 102, Pub. L. 93-492, 99 Stat. 1470 (15 U.S.C. 1417); delegations of authority at 49 CFR 1.50 and 49 CFR 501.1)

Issued on November 19, 1979.

Michael M. Finkelstein,

Associate Administrator for Rulemaking.

[FR Doc. 79-36462 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-59-M

## INTERSTATE COMMERCE COMMISSION

[Vol. No. 199]

#### Permanent Authority Decisions; Decision-Notice

The following applications, filed on or after March 1, 1979, are governed by Special Rule 247 of the Commission's *Rules of Practice* (49 CFR § 1100.247). These rules provide, among other things, that a petition for intervention, either in support of or in opposition to the granting of an application, must be filed with the Commission within 30 days after the date notice of the application is published in the *Federal Register*. Protests (such as were allowed to filings prior to March 1, 1979) *will be rejected*. A petition for intervention without leave must comply with Rule 247(k) which requires petitioner to demonstrate that it (1) holds operating authority permitting performance of any of the service which the applicant seeks authority to perform, (2) has the necessary equipment and facilities for performing that service, and (3) has performed service within the scope of the application either (a) for those supporting the application, or, (b) where the service is not limited to the facilities of particular shippers, from and to, or between, any of the involved points.

Persons unable to intervene under Rule 247(k) may file a petition for leave to intervene under Rule 247(l) setting forth the specific grounds upon which it is made, including a detailed statement of petitioner's interest, the particular facts, matters, and things relied upon, including the extent, if any, to which petitioner (a) has solicited the traffic or business of those supporting the application, or, (b) where the identify of those supporting the application is not included in the published application

notice, has solicited traffic or business identical to any part of that sought by applicant within the affected marketplace the extent to which petitioner's interest will be represented by other parties, the extent to which petitioner's participation may reasonably be expected to assist in the development of a sound record, and the extent to which participation by the petitioner would broaden the issues or delay the proceeding.

Petitions not in reasonable compliance with the requirements of the rules may be rejected. An original and one copy of the petition to intervene shall be filed with the Commission, and a copy shall be served concurrently upon applicant's representative, or upon applicant if no representative is named.

Section 247(f) provides, in part, that an applicant which does not intend to timely prosecute its application shall promptly request that it be dismissed, and that failure to prosecute an application under the procedures of the Commission will result in its dismissal.

If an applicant has introduced rates as an issue it is noted. Upon request, an applicant must provide a copy of the tentative rate schedule to any protestant.

Further processing steps will be by Commission notice, decision, or letter which will be served on each party of record. *Broadening amendments will not be accepted after the date of this publication.*

Any authority granted may reflect administrative acceptable restrictive amendments to the service proposed below. Some of the applications may have been modified to conform to the Commission's policy of simplifying grants of operating authority.

#### Findings

With the exception of those applications involving duly noted problems (e.g., unresolved common control, unresolved fitness questions, and jurisdictional problems) we find, preliminarily, that each common carrier applicant has demonstrated that its proposed service is required by the present and future public convenience and necessity, and that each contract carrier applicant qualifies as a contract carrier and its proposed contract carrier service will be consistent with the public interest and the transportation policy of 49 U.S.C. § 10101. Each applicant is fit, willing, and able properly to perform the service proposed and to conform to the requirements of Title 49, Subtitle IV, United States Code, and the Commission's regulations. Except where specifically noted, this decision is neither a major Federal

action significantly affecting the quality of the human environment nor a major regulatory action under the Energy Policy and Conservation Act of 1975.

In those proceedings containing a statement or note that dual operations are or may be involved we find, preliminarily and in the absence of the issue being raised by a petitioner, that the proposed dual operations are consistent with the public interest and the transportation policy of 49 U.S.C. § 10101 subject to the right of the Commission, which is expressly reserved, to impose such terms, conditions or limitations as it finds necessary to insure that applicant's operations shall conform to the provisions of 49 U.S.C. § 10930(a) (formerly section 210 of the Interstate Commerce Act).

In the absence of legally sufficient petitions for intervention, filed within 30 days of publication of this decision-notice (or, if the application later becomes unopposed), appropriate authority will be issued to each applicant (except those with duly noted problems) upon compliance with certain requirements which will be set forth operations shall conform to the provisions of 49 U.S.C. § 10930(a) (formerly section 210 of the Interstate Commerce Act.)

In the absence of legally sufficient petitions for intervention, filed within 30 days of publication of this decision-notice (or, if the application later becomes unopposed), appropriate authority will be issued to each applicant (except those with duly noted problems) upon compliance with certain requirements which will be set forth in a notification of effectiveness of the decision-notice. To the extent that the authority sought below may duplicate an applicant's other authority, such duplication shall be construed as conferring only a single operating right.

Applicants must comply with all specific conditions set forth in the following decision-notices within 30 days after publications, or the application shall stand denied.

**Note.**—All applications are for authority to operate as a common carrier, by motor vehicle, in interstate or foreign commerce, over irregular routes, except as otherwise noted.

#### Volume No. 199

Decided: October 23, 1979.

By the Commission, Review Board Number 2, Members Boyle, Eaton, and Liberman.

MC 1184 (Sub-25F), filed May 25, 1979. Applicant: K & B TRANSPORT, INC., 21533 Mound Rd., Warren, MI 48091. Representative: Alex J. Miller, 1520 N.

Woodward Ave., Suite 106, Bloomfield Hills, MI 48013. Transporting *new automobiles, new trucks, and new chassis*, in secondary movements, in truckaway service, from the facilities of Ford Motor Company, at or near South Bend, IN, to points in IL, IN, MI, OH, and WI. (Hearing site: Detroit, MI, or Chicago, IL.)

MC 2934 (Sub-24F), filed May 24, 1979. Applicant: AERO MAYFLOWER TRANSIT CO., INC., 9998 N. Michigan Rd., Carmel, IN 46032. Representative: James L. Beattey, 130 East Washington St., Suite One Thousand, Indianapolis, IN 46204. Transporting *restaurant equipment*, from points in Orange County, CA, to points in the United States (except AK and HI). (Hearing site: Indianapolis, IN, or Los Angeles, CA.)

MC 2934 (Sub-26F), filed May 24, 1979. Applicant: AERO MAYFLOWER TRANSIT CO., INC., 9998 N. Michigan Rd., Carmel, IN 46032. Representative: James L. Beattey, 130 East Washington St., Suite One Thousand, Indianapolis, IN 46204. Transporting *restaurant equipment*, from points in Los Angeles County, CA, to points in the United States (except AK and HI). (Hearing site: Indianapolis, IN, or Los Angeles, CA.)

MC 3854 (Sub-51F), filed May 25, 1979. Applicant: BURTON LINES, INC., P.O. Box 11306, East Durham Station, Durham, NC 27703. Representative: Edward G. Villalon, 1032 Pennsylvania Building, Pennsylvania Avenue & 13th St., NW., Washington, DC 20004. Transporting *iron and steel articles*, from the facilities of Connors Steel Company, Inc., at Huntington, WV, to points in AL, AR, FL, GA, LA, MS, MO, NC, SC, TN, TX, and VA. (Hearing site: Huntington, WV.)

MC 8535 (Sub-86F), filed May 25, 1979. Applicant: GEORGE TRANSFER AND RIGGING CO., INC., P.O. Box 500, Parkton, MD 21120. Representative: John Guandolo, 1000 Sixteenth St., NW, Washington, DC 20036. Transporting *wallboard, fibreboard, pulpboard, and strawboard*, from Cicero, IL, to points in IN, KY, MI, NY, OH, PA, and TN. (Hearing site: Chicago, IL, or Washington, DC.)

MC 8964 (Sub-35F), filed May 22, 1979. Applicant: WITTE TRANSPORTATION CO., a corporation, P.O. Box 43564, St. Paul, MN 55164. Representative: William S. Rosen, 630 Osborn Bldg., St. Paul, MN 55102. Transporting *general commodities* (except those of unusual value, classes A and B explosives, liquid commodities in bulk, household goods as defined by the Commission, and

commodities requiring special equipment), (1) between Spring Valley, MN, and Iowa City, IA, from Spring Valley over U.S. Hwy 63 to junction U.S. Hwy 218, then over U.S. Hwy 218 to Iowa City, and return over the same route; (2) between Spring Valley, MN, and junction U.S. Hwys 30 and 65, from Spring Valley over U.S. Hwy 16 to junction Interstate Hwy 90, then over Interstate Hwy 90 to junction Interstate Hwy 35, then over Interstate Hwy 35 to junction U.S. Hwy 30, then over U.S. Hwy 30 to junction U.S. Hwy 65, and return over the same route; (3) between Spring Valley, MN and junction U.S. Hwys 63 and 30, from Spring Valley over U.S. Hwy 16 to junction Interstate Hwy 90, then over Interstate Hwy 90 to junction Interstate Hwy 35, then over Interstate Hwy 35 to junction U.S. Hwy 65, then over U.S. Hwy 65 to junction U.S. Hwy 30, then over U.S. Hwy 30 to junction U.S. Hwy 63, and return over the same route; (4) between Spring Valley, MN, and Iowa City, IA, from Spring Valley over U.S. Hwy 63 to junction Interstate Hwy 80, then over Interstate Hwy 80 to Iowa City, and return over the same route, (5) between Spring Valley, MN, and Prairie du Chien, WS, from Spring Valley over U.S. Hwy 16 to junction U.S. Hwy 52, then over U.S. Hwy 52 to junction U.S. Hwy 18, then over U.S. Hwy 18 to Prairie du Chien, and return over the same route; (6) between Spring Valley, MN, and Prairie du Chien, WS, from Spring Valley over U.S. Hwy 16 to junction U.S. Hwy 52, then over U.S. Hwy 52 to junction MN Hwy 44, then over MN Hwy 44 to MN Hwy 76, then over MN Hwy 76 to MN-IA boundary line, then over IA Hwy 76 to junction U.S. Hwy 18, then over U.S. Hwy 18 to Prairie du Chien, and return over the same route, (7) between Spring Valley, MN, and junction U.S. Hwy 30 and Interstate Hwy 35, from Spring Valley over U.S. Hwy 16 to junction Interstate Hwy 90, then over Interstate Hwy 90 to junction U.S. Hwy 69, then over U.S. Hwy 69 to junction U.S. Hwy 30, then over U.S. Hwy 30 to junction Interstate Hwy 35, and return over the same route; in (1) through (7) above serving all intermediate points in IA, and serving Boone, Huxley, and Slater, IA, and those points in IA on east, and north of a line beginning at the MN-IA State line and extending along U.S. Hwy 69 to junction Interstate Hwy 80, then along Interstate Hwy 80 to the IA-IL State line (except points in Polk, Clinton, Scott, Dubuque, Jones, and Jackson Counties, IA) as off-route points. Condition: Issuance of a certificate is subject to prior or coincidental cancellation of Certificate

No. MC 8964 (Sub-35), at applicant's written request. (Hearing site: St. Paul, MN.)

Note.—Applicant intends to tack the requested authority with his existing authority. Applicant holds similar authority in MC 8964 (Sub-35), served June 29, 1978, which is conditioned that the authority shall not be, severable by sale or otherwise from the authority contained in Certificate No. MC 8965 (Sub-30), and restricted to the transportation of traffic moving between Spring Valley, MN, on the one hand, and, on the other, Prairie du Chien, WS, Boone, Huxley, or Slater, IA, or those points in IA on east, and north of a line beginning at the MN-IA State line and extending along U.S. Hwy 69 to junction Interstate Hwy 80, then along Interstate Hwy 80 to the IA-IL State line (except points in Polk, Clinton, Scott, Dubuque, Jones, and Jackson Counties, IA). By this application, applicant seeks to delete the above restriction.

MC 14215 (Sub-41F), filed May 29, 1979. Applicant: SMITH TRUCK SERVICE, INC., P.O. Box 1329, Steubenville, OH 43952. Representative: John L. Alden, Esquire, 1396 W. Fifth Avenue, P.O. Box 12241, Columbus, OH 43212. Transporting *iron and steel articles*, from Toledo, OH, to points in AL, IL, IN, MI, MO, PA and TN. (Hearing site: Columbus, OH, or Washington, DC.)

MC 19105 (Sub-57F), filed May 29, 1979. Applicant: FORBES TRANSFER COMPANY, INC., P.O. Box 3544, Wilson, NC 27893. Representative: Edward G. Villalon, 1032 Pennsylvania Building, Pennsylvania Avenue & 13th St., NW, Washington, DC 20004. Transporting (1) *iron and steel articles*, (2) *metal decking*, and (3) *accessories* for steel joists, from Florence, SC, to points in NC, VA, and MD. (Hearing site: Columbia, SC.)

MC 19105 (Sub-59F), filed May 25, 1979. Applicant: FORBES TRANSFER COMPANY, INC., P.O. Box 3544, Wilson, NC 27893. Representative: Lawrence E. Lindeman, 425 13th St., NW, Suite 1032, Washington, DC 20004. Transporting *building materials* (except commodities in bulk), from the facilities of Bird & Son, Inc., at Charleston Heights, SC, to points in NC and VA.

MC 24784 (Sub-31F), filed May 29, 1979. Applicant: BARRY, INC., 463 South Water, Olathe, KS 66061. Representative: Arthur J. Cerra, 2100 TenMain Center, P.O. Box 19251, Kansas City, MO 64141. Transporting *iron and steel articles*, from the facilities of Maverick Tube Company, at Union, MO, and Northwestern Steel and Wire Company, at Sterling and Rock Falls, IL, to points in AR, CO, IA, KS, LA, MO, NE, OK, and TX. (Hearing site: Kansas City, MO.)

MC 42405 (Sub-37F), filed April 16, 1979, previously published in the FR of September 11, 1979. Applicant: MISTLETOE EXPRESS SERVICE, a Corporation, P.O. Box 25614, Oklahoma City, OK 73125. Representative: T. M. Brown, P.O. Box 1540, Edmond, OK 73034. To operate as a *common carrier*, by motor vehicle, in interstate or foreign commerce, over regular routes, transporting *general commodities* (except classes A and B explosives), moving in express service, (1) between Afton and West Siloam Springs, OK: from Afton over U.S. Hwy 59 to junction OK Hwy 33, then over OK Hwy 33 to West Siloam Springs, and return over the same route, and (2) between junction OK Hwy 82 and U.S. Hwy 66 and Maysville, AR: from junction OK Hwy 20 and U.S. Hwy 66 over OK Hwy 20 to the OK-AR State line, then over AR Hwy 72 to Maysville, AR, and return over the same route, serving in connection with (1) and (2) above all intermediate points, and points in Delaware County, OK as off-route points. (Hearing site: Tulsa or Oklahoma City, OK.)

Note.—This republication corrects the exceptions.

MC 61825 (Sub-100F), filed May 22, 1979. Applicant: ROY STONE TRANSFER CORPORATION, V.C. Drive, P.O. Box 385, Collinsville, VA 24078. Representative: John D. Stone (same address as applicant). Transporting (1) *food and food products*, from the facilities of Campbell Soup Company, at or near Napoleon, OH, to points in VA and NC, and (2) *lawn and garden machinery, and snowthrowers*, and (3) *accessories* for the commodities in (2) above, from Plymouth, WI, to points in NC and VA. Condition: The person or persons engaged in common control of applicant and another regulated carrier must file an application under 49 U.S.C. 11343 [formerly section 5(2) of the Interstate Commerce Act] for approval of the common control, or file an affidavit indicating why such approval is unnecessary. (Hearing site: Washington, DC.)

MC 83835 (Sub-159F), filed May 24, 1979. Applicant: WALES TRANSPORTATION, INC., P.O. Box 226186, Dallas, TX 75266. Representative: James W. Hightower, First Continental Bank Bldg., Suite 301, 5801 Marvin D. Love Freeway, Dallas, TX 75237. Transporting (1) *material-handling equipment*, (2) *parts, accessories, and attachments* for material-handling equipment, and (3) *materials, equipment, and supplies* used in the manufacture of the commodities named in (1) and (2) above, between

points in Harris County, TX, on the one hand, and, on the other, points in the United States (except AK and HI), restricted to the transportation of traffic originating at or destined to the facilities of Kranco, Inc. (Hearing site: Houston or Dallas, TX.)

MC 85255 (Sub-66F), filed May 24, 1979. Applicant: PUGET SOUND TRUCK LINES, INC., P.O. Box 24526, Seattle, WA 98124. Representative: Clyde H. MacIver, 1900 Peoples National Bank Bldg., 1415 Fifth Ave., Seattle, WA 98171. Transporting *paper* and *paper products*, from the facilities of Louisiana Pacific Corporation, at or near Sumner, WA, to points in OR. (Hearing site: Seattle, WA.)

MC 88594 (Sub-33F), filed June 25, 1979. Applicant: CARLETON G. WHITAKER, INC., P.O. Box 93, Deposit, NY 13754. Representative: Michael R. Werner, 167 Fairfield Road, P.O. Box 1409, Fairfield, NJ 07006. Transporting *such commodities* as are dealt in or used by chain grocery and food business houses (except commodities in bulk, in tank vehicles), in vehicles equipped with mechanical refrigeration, between points in CT, DE, ME, MD, MA, NH, NJ, NY, OH, PA, RI, VT, and DC, restricted to the transportation of traffic originating at or destined to the facilities of Kraft, Inc. (Hearing site: Chicago, IL.)

MC 94265 (Sub-302F), filed May 25, 1979. Applicant: BONNEY MOTOR EXPRESS, INC., P.O. Box 305, Route 460 West, Windsor, VA 23487. Representative: Clyde W. Carver, P.O. Box 720434, Atlanta, GA 30328. Transporting (1) *foodstuffs* (except commodities in bulk, in tank vehicles), from Saugatuck and Holland, MI, to points in AL, DE, FL, GA, MD, NJ, NY, NC, PA, SC, TN, VA, WV, and DC; and (2) *materials and supplies* used in the manufacture of foodstuffs, in the reverse direction, restricted to the transportation of traffic originating at or destined to the facilities of Lloyd J. Harris Pie Company. (Hearing site: Chicago, IL, or Washington, DC.)

MC 98614 (Sub-9F), filed May 24, 1979. Applicant: ARKANSAS TRANSPORT COMPANY, a corporation, P.O. Box 702, Little Rock, AR 72203. Representative: Roland M. Lowell, 618 United American Bank Bldg., Nashville, TN 37219. Transporting *petroleum and petroleum products*, in bulk, (1) from points in AR, to points in MO, and (2) between Memphis, TN on the one hand, and, on the other, points in AR and MO. (Hearing site: Little Rock, AR.)

MC 100785 (Sub-5F), filed May 25, 1979. Applicant: LAWRENCE E. BULT d.b.a. L. BULT CARTAGE, 123 North Williams, Thornton, IL 60476.

Representative: Robert A. Kriscunas, 1301 Merchants Plaza, Indianapolis, IN 46204. Transporting (1) *ferro alloys*, from Chicago, IL, to Wilton, IA, and (2) *steel articles* from Wilton, IA, to Chicago, IL. (Hearing site: Indianapolis, IN, or Chicago, IL.)

MC 106074 (Sub-113F), filed May 25, 1979. Applicant: B AND P MOTOR LINES, INC., Shiloh Road and U.S. Hwy. 221 South, Forest City, NC 28043. Representative: Clyde W. Carver, P.O. Box 720434, Atlanta, GA 30328. Transporting *animal feed*, from Jefferson, WI, to Chattanooga, TN. (Hearing site: Charlotte, NC, or Washington, DC.)

Note.—Dual operations may be involved.

MC 106644 (Sub-279F), filed May 22, 1979. Applicant: SUPERIOR TRUCKING COMPANY, INC., P.O. Box 916, Atlanta, GA 30301. Representative: Louis C. Parker, III (same address as applicant). Transporting (1) *cocks, valves, and faucets*, (2) *parts and accessories* for the commodities in (1) above, and (3) *materials and supplies* used in the manufacture and distribution of the commodities in (1) and (2) above, between the facilities of Dezurick Corp., at or near Sartell, MN, on the one hand, and on the other, points in AL, AR, FL, GA, KS, KY, LA, MS, MO, NC, OK, SC, TN, VA, WV, and TX. (Hearing site: Minneapolis, MN, or Washington, DC.)

MC 107295 (Sub-922F), filed May 25, 1979. Applicant: PRE-FAB TRANSIT CO., a corporation, P.O. Box 146, Farmer City, IL 61842. Representative: Mack Stephenson, 42 Fox Mill Lane, Springfield, IL 62707. Transporting (1) *skylights, ventilators, hatches, aluminum extrusions*, and (2) *materials* used in the installation of the commodities in (1) above, from Houston, TX, to those points in the United States in and east of MN, IA, MO, AR, and LA. (Hearing site: Dallas, TX.)

MC 107295 (Sub-923F), filed May 25, 1979. Applicant: PRE-FAB TRANSIT CO., a corporation, P.O. Box 146, Farmer City, IL 61842. Representative: Mack Stephenson, 42 Fox Mill Lane, Springfield, IL 62707. Transporting: *plywood, composition board, paneling, and supplies* used in the manufacture of the commodities named in (1) above, (except commodities in bulk), between East Camden, AR, on the one hand, and, on the other, points in LA, TX, OK, KS, MO, IL, TN, VA, NC, SC, MS, and KY. (Hearing site: Little Rock, AR, or Meridian, MS.)

MC 107295 (Sub-924F), filed May 25, 1979. Applicant: PRE-FAB TRANSIT CO., a Corporation, P.O. Box 146, Farmer City, IL 61842. Representative:

Mack Stephenson, 42 Fox Mill Lane, Springfield, IL 62707. Transporting *composition board*, from Houston and Galveston, TX, to points in the United States (except AK and HA). (Hearing site: Dallas, TX.)

MC 107295 (Sub-925F), filed May 25, 1979. Applicant: PRE-FAB TRANSIT CO., a Corporation, P.O. Box 146, Farmer City, IL 61842. Representative: Mack Stephenson, 42 Fox Mill Lane, Springfield, IL 62707. Transporting (1) *pipe, couplings, pilings, well casings, and well screens*, from the facilities of Stanron Supply, Inc., at or near Lubbock, TX, to points in the United States (except AK and HI); (2) *materials, equipment, and supplies* used in the manufacture and distribution of the commodities named in (1) above (except commodities in bulk), in the reverse direction; and (3) *pipe, pilings, well screens, and well casings*, from Fontana and Long Beach, CA, Valley, NE, Pueblo, CO, and Houston, TX, to points in the United States (except AK and HI). (Hearing site: Denver, CO, or Dallas, TX.)

MC 109124 (Sub-80F), filed May 23, 1979. Applicant: SENTLE TRUCKING CORPORATION, P.O. Box 7850, Toledo, OH 43619. Representative: James M. Burtch, 100 E. Broad St., Suite 1800, Columbus, OH 43215. Transporting *iron and steel articles*, between the facilities of Crucible, Inc., Division of Colt Industries, at Midland, PA, on the one hand, and, on the other, points in WI, restricted to the transportation of traffic originating at or destined to the above named points. (Hearing site: Columbus, OH.)

MC 109124 (Sub-82F), filed May 29, 1979. Applicant: SENTLE TRUCKING CORPORATION, P.O. Box 7850, Toledo, OH 43619. Representative: James M. Burtch, 100 E. Broad St., Suite 1800, Columbus, OH 43215. Transporting *lime, limestone and lime products*, from the facilities of United States Steel Corporation, at Lorain, OH, to the facilities of United States Steel Corporation in Allegheny County, PA. (Hearing site: Columbus, OH.)

MC 109124 (Sub-84F), filed May 24, 1979. Applicant: SENTLE TRUCKING CORP., P.O. Box 7850, Toledo, OH 43619. Representative: James M. Burtch, 100 E. Broad St., Suite 1800, Columbus, OH 43215. Transporting *ammonium sulfate*, from Aliquippa, PA, to Woodville, OH. (Hearing site: Columbus, OH.)

MC 109124 (Sub-85F), filed May 23, 1979. Applicant: SENTLE TRUCKING CORP., P.O. Box 7850, Toledo, OH 43619. Representative: James M. Burtch, 100 E. Broad Street, Suite 1800, Columbus, OH 43215. Transporting *sand*, from points in

Porter, LaPorte, Jasper, and Newton Counties, IN, to points in IL, MI, and OH. (Hearing site: Columbus, OH.)

MC 111545 (Sub-282F), filed May 22, 1979. Applicant: HOME TRANSPORTATION CO., INC., P.O. Box 6426, Station A, Marietta, GA 30065. Representative: Robert E. Born (same address as applicant). Transporting *such commodities* as are dealt in or used by manufacturers and dealers of (a) agricultural equipment, (b) industrial equipment, and (c) lawn and leisure products, (except commodities in bulk), (a) between the facilities of Deere & Company in Black Hawk, Polk, and Wapello Counties, IA, on the one hand, and, on the other, points in FL, GA, NC, and SC; (b) between the facilities of Deere & Company in Dubuque and Scott Counties, IA, on the one hand, and, on the other, points in AL, FL, GA, IN, KY, MI, NC, OH, SC, and TN; (c) between the facilities of Deere & Company in Rock Island County, IL, on the one hand, and, on the other, points in AL, FL, GA, KY, NC, and SC; and (d) between points in AL, FL, GA, IN, KY, MI, NC, OH, SC, and TN, restricted in parts (a), (b), and (c) to the transportation of traffic originating at or destined to the facilities of Deere & Company, and in part (d) to the transportation of traffic originating at or destined to the facilities of Deere & Company dealers. (Hearing site: Chicago, IL, or St. Paul, NM.)

MC 112304 (Sub-189F), filed May 29, 1979. Applicant: ACE DORAN HAULING & RIGGING CO., 1601 Blue Rock St., Cincinnati, OH 45223. Representative: Fred Schmits (same address as applicant). Transporting (1) *pollution control equipment*, and *pollution control products* from the facilities of Precipitair Pollution Control Company, at Longview, TX, to points in the United States (except AK and HI); (2) *fabricated steel* and *pressure vessels*, from the facilities of Advance Ross Steel Company, at Longview, TX, to points in the United States (except AK and HI); and (3) *equipment, materials, and supplies* used in the manufacture of the commodities named in (1) and (2) above, (except commodities in bulk), from points in the United States (except AK and HI), to the facilities named in (1) and (2) above. (Hearing site: Dallas, TX, or Washington, DC.)

MC 113325 (Sub-161F), filed May 29, 1979. Applicant: SLAY TRANSPORTATION CO., INC., 2001 South Seventh St., St. Louis, MO 63104. Representative: T. M. Tahan (same address as applicant). Transporting *chemicals*, in bulk, in tank vehicles, (1) from the facilities of Monsanto Co., at or

near Chocolate Bayou, Texas City, and Houston, TX, to those points in the United States in and east of MN, IA, MO, AR, and LA, and (2) between the facilities of Dow Chemical U.S.A., in Brazoria County, TX, on the one hand, and, on the other, points in the United States (except AK and HI). (Hearing site: St. Louis, MO, or Dallas, TX.)

MC 113434 (Sub-136F), filed May 21, 1979. Applicant: GRA-BELL TRUCK LINE, INC., A-5253-144th Ave., Holland, MI 49423. Representative: Wilhelmina Boersma, 1600 First Federal Bldg., Detroit, MI 48226. Transporting (1) *printed matter*, and (2) *materials, equipment, and supplies* used in the manufacture and distribution of printed matter (except commodities in bulk), between the facilities used by Rand McNally & Company, at (a) Hammond and Indianapolis, IN, (b) Versailles and Lexington, KY, and (c) Chicago, Downers Grove, Naperville, and Skokie, IL, on the one hand, and, on the other, points in IL, IN, IA, KY, MD, MI, MO, NJ, NY, OH, PA, TN, WI, WV, and DC, and (3) *paper and paper products*, between points in IL, IN, KY, MI, MO, NY, OH, PA, and WI, restricted to the transportation of traffic originating at or destined to the facilities of Alton Box Board Company, and restricted in (1) and (3) to the transportation of traffic originating at and destined to the above-named points. (Hearing site: Chicago, IL, or St. Louis, MO.)

MC 113434 (Sub-137F), filed May 22, 1979. Applicant: GRA-BELL LINE, INC., A-5253-144th Ave., Holland MI 49423. Representative: Wilhelmina Boersman, 1600 First Federal Bldg., Detroit, MI 48226. Transporting (1) *edible flour*, (except in bulk), from Holland, MI, to points in PA, (2) *frozen foods*, from the facilities of Mid-American Potato Company, at Grand Rapids, Lake Odessa, and Martin, MI, to St. Louis, MO, points in IL, IN, OH, PA, KY, and those in NY on the west of Interstate Hwy 81, and (3) *such commodities* as are manufactured or used by food processors (except commodities in bulk), between the facilities of Lloyd J. Harriss Pie Company, at or near Saugatuck and Holland, MI, on the one hand, and, on the other, points in IL, IN, KY, MO, NJ, NY, OH, PA, TN, WI, and WV, restricted in (1) and (2) above transportation of traffic originating at the named origins and destined to the indicated destinations, and in (3) above to the transportation of traffic originating at the destinations to the indicated points. (Hearing site: Grand Rapids, MI, or Chicago, IL.)

MC 114604 (Sub-75F), filed May 22, 1979. Applicant: CAUDEL

TRANSPORT, INC., P.O. Drawer I, Forest Park, GA 30050. Representative: Frank D. Hall, Suite 713, 3384 Peachtree Rd., N.E., Atlanta, GA 30326. Transporting *foodstuffs* (except commodities in bulk in tank vehicles), in vehicles equipped with mechanical refrigeration, from the facilities of M&M/Mars, at or near Cleveland, TN, to points in GA, FL, AL, NC, SC, MS, and LA. (Hearing site: Atlanta, GA, or Washington, DC.)

MC 114604 (Sub-76F), filed May 21, 1979. Applicant: CAUDEL TRANSPORT, INC., P.O. Box Drawer I, Forest Park, GA 30050. Representative: Frank D. Hall, Suite 713, 3384 Peachtree Rd., NE., Atlanta, GA 30326. Transporting *such commodities* as are dealt in by chain grocery and food business houses (except commodities in bulk, in tank vehicles), in vehicles equipped with mechanical refrigeration, between points in AL, FL, GA, IL, IN, OH, MI, PA, NY, SC, TN, TX, VA, and AR. (Hearing site: Atlanta, GA.)

MC 116254 (Sub-269F), filed May 21, 1979. Applicant: CHEM-HAULERS, INC., 118 East Mobile Plaza, Florence, AL 35630. Representative: Hampton M. Mills (same address as applicant). Transporting *liquid chemicals*, in bulk, in tank vehicles, from the facilities of Argus Chemical Corporation, a subsidiary of Witco Chemical Corporation, at Taft, LA, to points in AL, FL, GA, and MS. (Hearing site: New Orleans, LA, or Washington, DC.)

MC 117574 (Sub-332F), filed May 21, 1979. Applicant: DAILY EXPRESS, INC., P. O. Box 39, 1076 Harrisburg Pike, Carlisle, PA 17013. Representative: E. S. Moore, Jr. (same address as applicant). Transporting (1) *wood products*, from points in Granville County, NC, to points in AL, AR, CT, DE, FL, GA, IL, IN, IA, KY, LA, ME, MD, MA, MI, MN, MS, MO, NH, NJ, NY, NC, OH, PA, RI, SC, TN, TX, VT, VA, WV, WI, and DC; and (2) *materials, equipment, and supplies* used in the manufacture and distribution of wood products, (except commodities in bulk), in the reverse direction. (Hearing site: New Orleans, LA, or Washington, DC.)

MC 117574 (Sub-333F), filed May 21, 1979. Applicant: DAILY EXPRESS, INC., P. O. Box 39, 1076 Harrisburg Pike, Carlisle, PA 17013. Representative: E. S. Moore, Jr. (same address as applicant). Transporting (1) *fiberboard, particle board and plywood*, from points in Sussex County, VA to points in CT, DE, IL, IN, KY, MD, MA, ME, MI, NH, NJ, NY, OH, PA, RI, VT, WV, WI and DC, and (2) *materials, equipment and supplies* used in the manufacture and distribution of the commodities in (1)

above, (except commodities in bulk), in the reverse direction. (Hearing site: New Orleans, LA, or Washington, DC.)

MC 117574 (Sub-337F), filed May 21, 1979. Applicant: DAILY EXPRESS, INC., P.O. Box 39, 1076 Harrisburg Pike, Carlisle, PA 17013. Representative: E. S. Moore, Jr. (same address as applicant). Transporting *such commodities* as are dealt in or used by manufacturers and dealers of (a) agricultural equipment, (b) industrial equipment, and (c) lawn and leisure products (except commodities in bulk), (1) between the facilities of Deere & Company, in (a) Black Hawk, Dubuque, Polk, Scott, and Wapello Counties, IA, and (b) Rock Island County, IL, on the one hand, and, on the other, points in CT, DE, FL, GA, ME, MD, MA, NH, NJ, NY, NC, OH, PA, RI, SC, VT, VA, and WV, (2) between the facilities of Deere & Company, in Dodge County, WI, on the one hand, and, on the other, points in CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VT, and VA, and (3) between points in CT, DE, FL, GA, ME, MD, MA, NH, NJ, NY, NC, OH, PA, RI, SC, VT, VA, and WV, restricted in (1) and (2) above to the transportation of traffic originating at or destined to the facilities of Deere & Company, and in (3) to the transportation of traffic originating at or destined to the facilities of Deere & Company dealers. (Hearing site: Chicago, IL, or St. Paul, MN)

MC 117765 (Sub-263F), filed May 22, 1979. Applicant: HAHN TRUCK LINE, INC., 1100 S. MacArthur, P.O. Box 75218, Oklahoma City, OK 73147. Representative: R. E. Hagan (same address as applicant). Transporting (1) *accoustical tile and metal supports*, from the facilities of Emerson Electric Co. (Soundlock Div.), at (2) Hazelhurst, GA, and (b) Tupelo, MS, to points in OK, and (2) *composition tile and adhesive material*, in containers, from the facilities of Armstrong Cork Co., at Jackson, MS, to points in OK. (Hearing site: Oklahoma City, OK)

MC 119654 (Sub-74F), filed May 24, 1979. Applicant: HI-WAY DISPATCH, INC., 1401 West 26th St., Marion, IN 46952. Representative: Norman R. Garvin, 1301 Merchants Plaza, Indianapolis, IN 46204. Transporting (1) *containers*, and *accessories* for containers, and (2) *materials, equipment, and supplies* used in the manufacture and distribution of the commodities in (1) above, (except commodities in bulk), between points in IL, IN, OH, MI, MO, KY, WI, and those in PA on and west of a line beginning at the NY-PA State line and extending along U.S. Hwy 219 to junction U.S. Hwy 119 then along U.S. Hwy 119, to the PA-

WV State line. (Hearing site: Indianapolis, IN, or Chicago, IL)

MC 119774 (Sub-102F), filed May 22, 1979. Applicant: EAGLE TRUCKING COMPANY, A CORPORATION, P.O. Box 471, Kilgore, TX 75662. Representative: Bernard H. English, 6270 Firth Rd., Fort Worth, TX 76116. Transporting *iron and steel articles*, from the facilities of Earle M. Jorgensen Company, at or near Schaumburg, IL, to points in OK and TX. (Hearing site: Dallas or Fort Worth, TX.)

MC 119974 (Sub-79F), filed April 30, 1979, previously noticed in the FR issue of September 27, 1979. Applicant: L.C.L. TRANSIT COMPANY, a Corporation, 949 Advance Street, Green Bay, WI 54304. Representative: L. F. Abel, P.O. Box 949, Green Bay, WI 54305. Transporting *such commodities* as are dealt in by chain grocery and food business houses, (except commodities in bulk, in tank vehicles) in vehicles equipped with mechanical refrigeration, between AL, AR, CT, FL, GA, IA, IL, IN, KS, KY, MD, MI, MN, MO, MS, NC, ND, NE, NJ, NY, OH, PA, SC, SD, TN, TX, UT, VA, and WI, restricted to the transportation of traffic originating at or destined to the facilities of Kraft, Inc. (Hearing site: Washington, DC, or Chicago, IL.)

Note.—This republication adds NY to the points above.

MC 119974 (Sub-81F), filed May 21, 1979. Applicant: L.C.L. TRANSIT COMPANY, a Corporation, 949 Advance St., Green Bay, WI 54304. Representative: L. F. Abel, P.O. Box 949, Green Bay, WI 54305. Transporting *meat byproducts, pet food, and animal feed*, (except commodities in bulk, in tank vehicles), between the facilities of Kal-Kan Foods, Inc., at Columbus, OH, on the one hand, and, on the other, Kansas City, KS, and points in IL, IN, IA, KY, MI, MN, MO, and WI. (Hearing site: Chicago, IL, or Washington, DC.)

MC 123074 (Sub-16F), filed May 23, 1979. Applicant: M. L. ASBURY, INC., 1100 South Oakwood, Detroit, MI 48217. Representative: William B. Elmer, 21635 East Nine Mile Rd., St. Clair Shores, MI 48080. Transporting *asphalt and asphalt products*, in bulk, in tank vehicles, from Detroit, MI, to points in LaGrange and Steuben Counties, IN. (Hearing site: Detroit, MI.)

MC 123074 (Sub-17F), filed May 22, 1979. Applicant: M. L. ASBURY, INC., 1100 South Oakwood, Detroit, MI 48217. Representative: William B. Elmer, 21635 East Nine Mile Rd., St. Clair Shores, MI 48080. Transporting *inedible tallow*, in bulk, in tank vehicles, between Detroit, MI, on the one hand, and, on the other,

points in IN, IL, and OH. (Hearing site: Detroit, MI.)

MC 125335 (Sub-67F.) filed May 22, 1979. Applicant: GOODWAY TRANSPORT, INC., P.O. Box 2283, York, PA 17405. Representative: Gailyn L. Larsen, P.O. Box 82816, Lincoln, NE 68501. Transporting (1) *motorcycles and recreational vehicles*, (2) *components and accessories* for the commodities named in (1) above, and (3) *materials, equipment, and supplies* used in the manufacture and distribution of the commodities named in (1) above, (a) from the facilities of AMF, York Division, at or near York and Middletown, PA, to points in WI, IA, KS, NE, MN, AL, GA, MS, FL, and MO, and (b) from Milwaukee, WI, to the facilities of AMF, York Division, at or near York and Middletown, PA. (Hearing site: Harrisburg, PA, or Lincoln, NE.)

MC 127705 (Sub-82F.) filed May 24, 1979. Applicant: KREVEDA BROS. EXPRESS, INC., P.O. Box 68, Gas City, IN 46933. Representative: Donald W. Smith, P.O. Box 40248, Indianapolis, IN 46240. Transporting *foodstuffs*, (except commodities in bulk) from the facilities of Ragu' Foods at Rochester, NY, to points in IL, MD, MI, OH, PA, WI, and WV. (Hearing site: Washington, DC.)

MC 128114 (Sub-7F.) filed May 22, 1979. Applicant: SAVAGE & SONS, INC., P.O. Box 2422, Pasco, WA 99302. Representative: Donald A. Ericson, 708 Old National Bank Bldg., Spokane, WA 99201. Transporting *fertilizer*, in bags, from the facilities of Chevron Chemical Co., in Benton County, WA, to points in Umatilla, Morrow, Gilliam, Sherman, Wasco, Hood River, Multnomah, Columbia, Clatsop, Washington, Yamhill, Clackamas, Marion, Polk, Benton, Linn, Lane, and Douglas Counties, OR. (Hearing site: Seattle, or Spokane, WA.)

MC 128205 (Sub-79F.) filed May 25, 1979. Applicant: BULKOMATIC TRANSPORT COMPANY, a Corporation, 12000 South Doty Avenue, Chicago, IL 60628. Representative: Arnold L. Burke, 180 North LaSalle Street, Chicago, IL 60601. Transporting *soda ash*, in bulk, from Chicago, IL, to points in IL, IN, IA, MI, OH, WI, and MO. (Hearing site: New York, NY.)

MC 128964 (Sub-9F), filed May 24, 1979. Applicant: REES TRUCKING CO., INC., P.O. Box G, Houston, MO 65483. Representative: Herman W. Huber, 101 East High Street, Jefferson City, MO 65101. Transporting *iron and steel articles*, from the facilities of Northwestern Steel & Wire Company, at Sterling, IL, to points in AR, MO, and OK. (Hearing site: St. Louis or Jefferson City, MO.)

MC 128964 (Sub-10F), filed May 24, 1979. Applicant: REES TRUCKING CO., INC., P.O. Box G, Houston, MO 65483. Representative: Herman W. Huber, 101 East High Street, Jefferson City, MO 65101. Transporting *iron and steel articles*, from the facilities of Granite City Steel, a Division of National Steel Corp., at Granite City, IL, to points in AR, KS, MO, and OK. (Hearing site: St. Louis or Jefferson City, MO.)

MC 133485 (Sub-30F), filed May 23, 1979. Applicant: INTERNATIONAL DETECTIVE SERVICE, INC., 1828 Westminster Street, Providence, Rhode Island 02909. Representative: Morris J. Levin, 1050 Seventeenth Street NW., Washington, D.C. 20036. Transporting *currency*, in armored vehicles escorted by armed guards, between Culpepper, VA, and Washington, DC, on the one hand, and, on the other, points in the United States (except AK and HI). (Hearing site: Providence, RI, or Washington, DC.)

MC 135684 (Sub-94F), filed May 29, 1979. Applicant: BASS TRANSPORTATION CO., INC., P.O. Box 391, Old Croton Rd., Flemington, NJ 08822. Representative: Herbert Alan Dubin, 1320 Fenwick Lane, Silver Spring, MD 20910. Transporting *such commodities* as are dealt in by grocery stores, hardware stores, and drug stores, in containers, from the facilities of Confectionery Consolidators, Inc., to points in the United States (except AK and HI). (Hearing site: Washington, DC, or Newark, NJ.)

MC 136315 (Sub-76F), filed May 20, 1979. Applicant: OLEN BURRAGE TRUCKING, INC., Route 9, Box 22-A, Philadelphia, MS 39350. Representative: Fred W. Johnson, Jr., 1500 Deposit Guaranty Plaza, P.O. Box 22628, Jackson, MS 39205. Transporting (1) *freight and passenger elevators*, and *parts and attachments* for freight and passenger elevators, (a) between the facilities of Dover Corporation, Elevator Division, in DeSoto County, MS, on the one hand, and, on the other, the facilities of Dover Corporation, Elevator Division, in Hardeman County, TN, and (b) from the facilities of Dover Corporation, Elevator Division, (i) in DeSoto County, MS, (ii) in Hardeman County, TN, and (iii) at Cincinnati, OH, to points in IL, IN, OH, MI, WI, IA, and MN, and (2) *materials, equipment, and supplies* used in the manufacture, and distribution of the commodities named in (1) above, from points in the destination States named (1)(b) above to the facilities named in (1)(b) above, restricted in (1) and (2) against the transportation of commodities in bulk and those which require the use of special equipment.

(Hearing site: Memphis, TN, or Jackson, MS.)

Note.—Dual operations may be involved.

MC 136545 (Sub-23F), filed May 23, 1979. Applicant: NUSSBERGER BROS. TRUCKING CO., INC., 929 Railroad St., Prentice, WI 54556. Representative: Richard A. Westley, 4506 Regent St., Suite 100, Madison, WI 53705. Transporting *flat-bed and drop-deck trailers*, designed to be drawn by semi-tractors, in initial movements, from Birmingham, AL, Lufkin, TX, and Elizabeth, WV, to the facilities of Dalke Trailer Sales, at or near New Brighton, MN. (Hearing site: Minneapolis, MN, or Chicago, IL.)

Note.—Dual operations may be involved.

MC 136605 (Sub-115F), filed May 29, 1979. Applicant: DAVIS BROS. DIST., INC., P.O. Box 8058, Missoula, MT 59807. Representative: Joe Gerbase, Suite 100 Transwestern Bldg., 404 N. 31st St., Billings, MT 59101. Transporting *agricultural and industrial equipment and supplies*, from Des Moines and Sioux City, IA, and points in Rock Island County, IL, to those points in the United States in and west of WI, IL, MO, OK, and TX (except AK and HI). (Hearing site: Des Moines, IA.)

MC 139334 (Sub-2F), filed May 23, 1979. Applicant: R. J. GLASS, INC., Box 337, Newry, PA 16665. Representative: John E. Fullerton, 407 N. Front St., Harrisburg, PA 17101. Transporting *fused alumina*, in bulk, in tank vehicles, from Niagara Falls and Tonawanda, NY, to Sproul, PA. (Hearing Site: Washington, DC.)

MC 139495 (Sub-451F), filed May 24, 1979. Applicant: NATIONAL CARRIERS, INC., 1501 East 8th Street, P.O. Box 1358, Liberal, KS, 67901. Representative: Herbert Alan Dubin, 1320 Fenwick Lane, Silver Spring, MD 20910. Transporting *flashlights and batteries*, and *materials and supplies* used in the manufacture of flashlights and batteries (except commodities in bulk, in tank vehicles), from the facilities of Duracell Products Company/Mallory Battery Co., at or near (a) Cleveland, TN, (b) Lancaster, SC, (c) Waterbury and Bethel, CT, (d) Palmerton, PA, (e) Rockford, IL, and (f) Warren, OH, to points in CA, CT, IN, SC, TN, and TX. (Hearing site: Washington, DC.)

MC 139495 (Sub-454F), filed May 23, 1979. Applicant: NATIONAL CARRIERS, INC., 1501 East 8th Street, P.O. Box 1358, Liberal, KS, 67901. Representative: Herbert Alan Dubin, 1320 Fenwick Lane, Silver Spring, MD 20910. Transporting *packaging equipment, boneguards, and materials and supplies* used in the manufacture

and repair of packaging equipment, from points in Hampden and Middlesex Counties, MA, to those points in the United States in and west of MI, OH, KY, TN, and GA (except AK and HI). (Hearing site: Washington, DC.)

MC 140024 (Sub-152F), filed May 29, 1979. Applicant: J. B. MONTGOMERY, INC., 5565 East 52nd Ave., Commerce City, CO 80022. Representative: Don Bryce (same address as applicant). Transporting *metal rolling mill machinery*, and *parts* for metal rolling mill machinery, from Canton and Youngstown, OH, and Vandergrift, PA, to Pueblo, CO, restricted to the transportation of traffic destined to Pueblo, CO. (Hearing site: Denver, CO, or Pittsburgh, PA.)

MC 141774 (Sub-25F), filed May 28, 1979. Applicant: R & L TRUCKING CO., INC., 105 Rocket Ave., Opelika, AL 36801. Representative: Robert E. Tate, P.O. Box 517, Evergreen, AL 36401. Transporting *general commodities* (except those of unusual value, household goods as defined by the Commission classes A and B explosives, commodities in bulk, and those requiring special equipment, between the facilities of the Henderson County Riverport Authority, in Henderson County, KY, on the one hand, and, on the other, points in AL, TN, MS, GA, FL, KY, and MO. (Hearing site: Louisville, KY, or Evansville, IN.)

Note.—Dual operations may be involved.

MC 141804 (Sub-228F), filed May 29, 1979. Applicant: WESTERN EXPRESS, division of INTERSTATE RENTAL, INC., P.O. Box 3488, Ontario, CA 91761. Representative: Frederick J. Coffman (same address as applicant). Transporting (1) *vehicle parts*, and *vehicle accessories*, and (2) *supplies* used in the manufacture of the commodities named in (1) above, between Billings, MT, on the one hand, and, on the other, points in CA. (Hearing site: Los Angeles or San Francisco, CA.)

MC 141804 (Sub-232F), filed May 22, 1979. Applicant: WESTERN EXPRESS, division of INTERSTATE RENTAL, INC., P.O. Box 3488, Ontario, CA 91761. Representative: Frederick J. Coffman (same address as applicant). Transporting *mirrors, doors, builder's hardware*, and *home accessories*, from the facilities of Monarch Mirror Door Company at or near Chatsworth, CA, to points in MT, WY, CO, NM, TX, OK, KS, NE, SD, ND, MN, IA, MO, AR, LA, NV, AZ and UT. (Hearing site: Los Angeles or San Francisco, CA.)

MC 141804 (Sub-234F), filed May 30, 1979. Applicant: WESTERN EXPRESS, division of INTERSTATE RENTAL,

INC., P.O. Box 3488, Ontario, CA 91761. Representative: Frederick J. Coffman (same address as applicant). Transporting *impregnated foam*, between points in CA, on the one hand, and on the other hand, those points in the United States in and east of ND, SD, NE, KS, OK, and TX. (Hearing site: Los Angeles or San Francisco, CA.)

MC 142335 (Sub-8F), filed May 24, 1979. Applicant: D & E TRUCKING COMPANY, INC., 11910 Greenstone Ave., Santa Fe Springs, CA 90670. Representative: Richard C. Celio, 1415 West Garvey Ave., Suite 102, West Covina, CA 91790. Transporting *steel*, from Geneva, UT, to Henderson, NV. (Hearing site: Los Angeles, CA.)

MC 143165 (Sub-5F), filed May 16, 1979. Applicant: CHARLES W. McCLELLAND d.b.a. McCLELLAND LUMBER TRANSPORTS, P.O. Box 73, Cuba, MO 65453. Representative: Charles W. McClelland (same address as applicant). To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *lumber and blocking material*, from the facilities of Feeler Lumber Co., at or near Rolla, MO, to points in IL and IN, under continuing contract(s) with Feeler Lumber Co., of Rolla, Mo. (Hearing site: St. Louis or Jefferson City, MO.)

MC 144345 (Sub-11F), filed May 21, 1979. Applicant: DON'S FROZEN EXPRESS, INC., 3820 Airport Way, Caldwell, ID 83605. Representative: David E. Wishney, P.O. Box 837, Boise, ID 83701. Transporting (1) *plastic containers, and materials and supplies used in the manufacture of plastic containers, soaps, and detergents*, from points in CA, OR, WA, and UT, to points in Ada and Canyon Counties, ID; and (2) *soaps, detergents, cleaning compounds and fabric softeners*, from the facilities of Intermountain Soap & Chemical Co., in Canyon County, ID, to points in CA, NV, OR, UT, and WA. (Hearing site: Boise, ID, or Portland, OR.)

MC 144345 (Sub-13F), filed May 21, 1979. Applicant: DON'S FROZEN EXPRESS, INC., 3820 Airport Way, Caldwell, ID 83605. Representative: David E. Wishney, P.O. Box 837, Boise, ID 83701. Transporting *frozen potato products*, (1) from the facilities of Carnation Potato Co., at Nampa, ID, to points in CA, NV, OR and WA, (2) between Othello and Moses Lake, WA, on the one hand, and on the other, Nampa, ID, restricted in (2) above to the transportation of traffic moving between the facilities of Carnation Potato Co., at the named points. (Hearing site: Boise, ID, or Portland, OR.)

MC 144844 (Sub-5F), filed May 29, 1979. Applicant: OZARK TRANSPORTATION, INC., P.O. Box 203, Greenville, MO 63944. Representative: Joseph Winter, 29 South LaSalle Street, Chicago, IL 60603. Transporting *iron and steel articles*, from the facilities of Jones & Laughlin Steel Corporation, at or near Chicago, IL, to points in AR, IL, KS, KY, MO, OK, and TN, restricted to the transportation of traffic originating at the named facilities and destined to the indicated destinations. (Hearing site: Chicago, IL.)

MC 144844 (Sub-6F), filed May 29, 1979. Applicant: OZARK TRANSPORTATION, INC., P.O. Box 203, Greenville, MO 63944. Representative: Joseph Winter, 29 South LaSalle Street, Chicago, IL 60603. Transporting *iron and steel articles*, from the facilities of National Material Corporation at or near Elk Grove Village, IL, to points in AR, IN, KS, KY, MO, OK, and TN, restricted to the transportation of traffic originating at the named facilities and destined to the indicated destinations. (Hearing site: Chicago, IL.)

MC 144865 (Sub-3F), filed May 29, 1979. Applicant: JASCO TRUCKING, INC., 202 94th St. SW., Albuquerque, NM 87105. Representative: David C. Olson, 20 First Plaza #405, P.O. Drawer 965, Albuquerque, NM 87103. To operate as *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *coal*, from points in Archuleta, Conejos, Costilla, LaPlata, Las Animas, and Montezuma Counties, CO, to the facilities of Ideal Basic Industries, in Bernalillo County, NM, under continuing contract(s) with Ideal Basic Industries, Inc., of Denver, CO. (Hearing site: Albuquerque, NM, or Denver, CO.)

MC 144884 (Sub-5F), filed May 29, 1979. Applicant: ARTHUR A. JOHNSTON & MICHAEL A. JOHNSTON d.b.a. JOHNSTON TRUCKING, P.O. Box 325, Spearfish, SD 57783. Representative: J. Maurice Andren, 1734 Sheridan Lake Rd., Rapid City, SD 57701. Transporting *lumber and lumber products*, from points in WY to points in IL, IN, IA, KS, KY, MI, MN, MO, NE, ND, OH, SD, and WI. (Hearing site: Rapid City, SD, or Minneapolis, MN.)

Note.—Dual operations may be involved.

MC 145935 (Sub-2F), filed May 23, 1979. Applicant: ALL STATES TRANSPORTATION, INC., Rt. 1, Box 27, Fort Worth, TX 76179. Representative: Harry F. Horak, Suite 115, 5001 Brentwood Stair Rd., Fort Worth, TX 76112. Transporting (1) *molded rubber products and molded plastic products*,

from the facilities of Entek Corporation of America, at or near Irving, TX, to points in the United States (except AK and HI), and (2) *materials, equipment, and supplies* used in the manufacture and distribution of the commodities in (1) above, the reverse direction. (Hearing site: Fort Worth or Dallas, TX.)

MC 146135 (Sub-2F), filed May 23, 1979. Applicant: HRIBAR BROS., INC., 1571 Waukesha Road, Caledonia, WI 53108. Representative: William C. Dineen, 710 N. Plankinton Avenue, Milwaukee, WI 53203. Transporting *dirt, sand, grave, stone, limestone, agricultural lime, and slag*, between points in Kenosha, Milwaukee, Racine, and Waukesha Counties, WI, on the one hand, and on the other, points in Cook, Lake, and McHenry Counties, IL, and Lake County, IN. (Hearing site: Milwaukee, WI.)

MC 146295 (Sub-2F), filed May 23, 1979. Applicant: MOORE'S TRUCKING, INC., P.O. Box 699, Red Bay, AL 35582. Representative: Gerald D. Colvin, Jr., 601-09 Frank Nelson Building, Birmingham, AL 35203. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *Stone*, between points in AL, TN, and MS, under continuing contract(s) with Road Maintenance Supply, Inc., of Jackson, MS. (Hearing site: Birmingham, AL, or Jackson, MS.)

MC 146715 (Sub-1F), filed May 21, 1979. Applicant: AUTO INN, INC., 240 N. Broadway, Wichita, KS 67202. Representative: Ronald K. Badger, 350 R. H. Garvey Bldg., 300 W. Douglas, Wichita, KS 67202. Transporting *wrecked, disabled and repossessed motor vehicles* and replacement vehicles for such commodities, by the use of wrecker equipment only, between points in KS, on the one hand, and, on the other, points in AZ, AR, CO, IL, IN, IA, KY, LA, MS, MO, NE, OH, OK, NM, TN, TX, UT, and WY. (Hearing site: Wichita, KS.)

MC 146814 (Sub-6F), filed May 22, 1979. Applicant: VAN WYK, INC., C Street, Box 433, Sheldon, IA 51201. Representative: Edward A. O'Donnell, 1004-29th Street, Sioux City, IA 51104. Transporting *meats, meat products and meat byproducts, and articles distributed by meat-packing houses, and dairy products*, as described in Sections A, B, and C of Appendix I to the report in *Descriptions in Motor Carrier Certificates*, 61 M.C.C. 209 and 766 (except hides, and commodities in bulk, in tank vehicles), from the facilities of John Morrell & Co., at or near (a) Sioux Falls, SD, and (b) Estherville and Sioux City, IA, to points in IL, IN, MI, MO, and

OH, restricted to the transportation of traffic originating at the named facilities and destined to the indicated destinations. (Hearing site: Chicago, IL.)

Note.—Dual operations may be involved.

MC 147045 (Sub-2F), filed May 24, 1979. Applicant: CALIFORNIA TRANSPORTATION LABOR, INC., a California Corporation, 6901 South Eastern Ave., Bell Gardens, CA 90201. Representative: Wyman C. Knapp, 1800 United California Bank Building, 707 Wilshire Boulevard, Los Angeles, CA 90017. Transporting *refined petroleum products*, in bulk from points in Los Angeles County, CA, to points in Clark and Nye Counties, NV, and Phoenix, Tucson, and Bull Head City, AZ. (Hearing site: Los Angeles, CA.)

MC 147424 (Sub-1F), filed May 21, 1979. Applicant: FAZE II, LTD., a Corporation, 303 East Ohio Street, Chicago, IL 60611. Representative: Allan C. Zuckerman, 39 South LaSalle Street, Chicago, IL 60603. Transporting (1) *photographic and video recording equipment*, and (2) *materials and supplies* used in the manufacture of the commodities in (1) above, (except commodities in bulk), from points in Cook County, IL, to points in IA, IN, KS, KY, MI, MN, MO, OH, NE, ND, SD, and WI. (Hearing site: Chicago, IL.)

MC 147424 (Sub-2F), filed May 21, 1979. Applicant: FAZE II, LTD., 303 East Ohio Street, Chicago, IL 60611. Representative: Allan C. Zuckerman, 39 South LaSalle Street, Chicago, IL 60603. Transporting *internal combustion engines and components* of internal combustion engines, from Detroit, MI, to Elmhurst, IL, and Pewaukee, WI, restricted to the transportation of traffic destined to the facilities of Powertron, Inc., at or near Elmhurst, IL, and Pewaukee, WI. (Hearing site: Chicago, IL.)

MC 147425F, filed May 22, 1979. Applicant: LLOYD CHRISTENSEN, d.b.a. LLOYD'S TIRE SERVICE, East 503 Second, Spokane, WA 99202. Representative: Donald A. Ericson, 708 Old National Bank Bldg., Spokane, WA 99201. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes transporting (1) *plastic scraps*, from the facilities of Sound Manufacturing, Inc., at Kent, WA, to McMinnville, OR, and Pico Rivera, Redlands, Carson, and La Mirada, CA, (2) *plastic sheets*, from McMinnville, OR, Pico Rivera, Redlands, Carson, and La Mirada, CA, to the facilities of Sound Manufacturing, Inc., at Kent, WA, and (3) *finished plastic products*, from the facilities of Sound Manufacturing, Inc., at Kent, WA, to Portland, Salem, and McMinnville, OR,

under continuing contract(s) in (1), (2), and (3) above, with Sound Manufacturing, Inc., of Kent, WA. (Hearing site: Seattle, WA, or Portland, OR.)

MC 147445F, filed May 29, 1979. Applicant: PETERSON TRANSPORT, 433 Sherman Canal, Venice, CA 90291. Representative: Stuart R. Mandel, 315 S. Beverly DR. Suite 315, Beverly Hills, CA 90212. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *paper products*, and *materials and supplies* used in the manufacture and distribution of paper products, (except commodities in bulk), from Los Angeles, CA, to points in AZ and NV under continuing contract(s) with Bemis Co., Inc., of Wilmington, CA. (Hearing site: Los Angeles, CA.)

MC 147575F, filed May 22, 1979. Applicant: FOLIAGE COMPANY OF AMERICA, INC., P.O. Box 712, Ludington, MI 49431. Representative: Edward Malinzak, 900 Old Kent Bldg., Grand Rapids, MI 49503. Transporting (1) *pulp containers*, from Lititz, PA, to Ludington, MI; (2) *straw florist forms and steel florist picks*, from Gastonia, NC, to points in MI, IL, IN, OH, and KY; (3) *dried flowers and foliage and decorative woods*, from Goldthwaite, TX, to points in the United States (except AK and HI) and (4) *artificial flowers and foliage and cellulose products* (except commodities in bulk), from New York, NY, to Detroit, MI, Pittsburgh, PA, and Louisville, KY, restricted in (1)-(4) above to the transportation of traffic originating at the named origins and destined to the indicated destinations.

MC 148095F, filed May 24, 1979. Applicant: TROJAN FREIGHT LINES LIMITED, a Corporation, 5280 Maingate Drive, P.O. Box 3030 Station A, Mississauga, Ontario, Canada L5A 3S3. Representative: Walter N. Bieneman, 100 West Long Lake Road, Suite 102, Bloomfield Hills, MI 48013. To operate as a *common carrier*, by motor vehicle, in foreign commerce only, over irregular routes, transporting *iron and steel articles*, (a) between ports of entry on the international boundary line between the United States and Canada on the Niagara River, on the one hand, and, on the other, points in NY, PA, OH, MD, and NJ, (b) between ports of entry on the international boundary line between the United States and Canada on the Detroit and St. Clair Rivers, on the one hand, and, on the other, points in MI. (Hearing site: Detroit, MI, or Buffalo, NY.)

#### Passenger Authority

MC 1515 (Sub-268F), filed May 22, 1979. Applicant: GREYHOUND LINES, INC., Greyhound Tower, Phoenix, AZ 85077. Representative: L. J. Celmins (same address as applicant). To operate as a *common carrier*, by motor vehicle, in interstate or foreign commerce, over regular routes, transporting *passengers and their baggage*, and *express and newspapers*, in the same vehicle with passengers, between Phoenix and Tempe, AZ, over city streets, serving the intermediate point of Scottsdale, AZ. (Hearing site: Phoenix, AZ.)

#### Volume No. 204

Decided: October 26, 1979.

By the Commission, Review Board Number 1, Members Carleton, Joyce, and Jones.

MC 118776 (Sub-33F), filed May 11, 1979. Applicant: GULLY TRANSPORTATION, INC., 3820 Wisman Lane, Quincy, IL 62301. Representative: Frank W. Taylor, Jr., Suite 600, 1221 Baltimore Avenue, Kansas City, MO 64105. Transporting (1) *air compressors, air compressor parts, and rough castings*, from Quincy, IL, to points in AL, CO, GA, IA, IN, KS, KY, LA, MD, MI, MN, MO, NC, NJ, NY, OH, OK, PA, SC, TN, TX, VA, WI, and WV, and (2) *materials* used in the manufacture of air compressors and air compressor parts, in the reverse direction. (Hearing site: St. Louis, MO, or Chicago, IL.)

MC 119656 (Sub-60F), filed May 10, 1979. Applicant: NORTH EXPRESS, INC., 219 Main Street, Winamac, IN 46996. Representative: Donald W. Smith, P.O. Box 40248, Indianapolis, IN 46240. Transporting *railroad ties, railroad poles, and railroad pilings, lumber, and wood products*, from Terre Haute, IN, to points in IL. (Hearing site: Indianapolis, IN.)

MC 119726 (Sub-159F), filed May 11, 1979. Applicant: N. A. B. TRUCKING CO., INC., 1644 West Edgewood Avenue, Indianapolis, IN 46217. Representative: James L. Beattley, 130 East Washington Street, Suite One Thousand, Indianapolis, IN 46204. Transporting (1) *fabricated and shaped metal articles and building materials* (except commodities in bulk), and (2) *materials, equipment, and supplies* used in the manufacture, distribution, and installation of the commodities named in (1) above, (except commodities in bulk and those requiring special equipment), between Pittsburg, KS, on the one hand, and, on the other, those points in the United States in and east of ND, SD, NE, CO, and NM. (Hearing site: Indianapolis, IN, or Kansas City, MO.)

MC 123407 (Sub-570F), filed April 30, 1979. Applicant: SAWYER TRANSPORT, INC., Sawyer Center, Rt. 1, Chesterton, IN 46304. Representative: H. E. Miller, Jr. (Same address as applicant). Transporting *glass*, from the facilities of C-E Glass Division of Combustion Engineering, Inc., at or near (a) Tampa and Miami, FL, (b) Stone Mountain, GA, and (c) Lancaster, OH, to points in the United States (except AK and HI). (Hearing site: Washington, DC.)

MC 124896 (Sub-91F), filed May 17, 1979. Applicant: WILLIAMSON TRUCK LINES, INC., P.O. Box 3485, Wilson, NC 27893. Representative: Jack H. Blanshan, Suite 200, 205 West Touhy Ave., Park Ridge, IL 60068. Transporting *foodstuffs, drugs, plastic articles, and rubber articles* (except commodities in bulk), from the facilities of Ross Laboratories, Inc., at or near (a) sturgis, MI, and (b) Columbus, OH, to points in AL, FL, GA, NC, SC, TN, and VA, restricted to the transportation of traffic originating at the named origins and destined to the indicated destinations. (Hearing site: Columbus, OH, or Washington, DC.)

MC 124997 (Sub-2F), filed March 28, 1979. Applicant: R. F. TRUESDELL CO., a Corporation, 6515 Anno Ave., Orlando, FL 32809. Representative: Paul M. Daniell, P.O. Box 872, Atlanta, GA 30301. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1) *paper and paper articles*, from Krannert and Mead, GA, to points in AL, AR, DE, FL, GA, IL, IN, KS, KY, LA, MD, MI, MO, MS, NC, NJ, NY, OH, OK, PA, SC, TN, TX, VA, WI, and WV; and (2) *materials, equipment, and supplies used in the manufacture or distribution of paper and paper articles*, (except commodities in bulk), in the reverse direction, under continuing contract with Inland Container Corporation, of Indianapolis, IN. (Hearing site: Atlanta, GA.)

MC 128007 (Sub-136F), filed May 3, 1979. Applicant: HOFER, INC., 20th and 69 bypass, Pittsburg, KS 66762. Representative: Larry E. Gregg, 641 Harrison Street, Topeka, KS 66603. Transporting (1)(a) *fabricated concrete reinforcing materials and joints*, and (b) *materials and supplies used in the manufacture of the commodities named in (1)(a) above*, between the facilities of Superior Concrete Accessories, Inc., at or near (a) Houston, TX, (b) Parker, AZ, (c) Santa Fe Springs, CA, (d) Red Hook, NY, (e) South Bend, IN, and (f) points in Labette County, KS, and (2) *materials and supplies used in the manufacture of the commodities named in (1)(a) above*, from points in the United States (except AK and HI), to points in Labette County,

KS. (Hearing site: Wichita, KS, or Kansas City, MO.)

MC 134286 (Sub-107F), filed April 30, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (Same address as applicant). Transporting (1) *adhesives, sealants, solvents, stains, and wood preservatives*, and (2) *materials, equipment, and supplies used in the installation, maintenance, and distribution of floors and floor coverings, and walls and wall coverings, in vehicles equipped with mechanical refrigeration*, (except commodities in bulk), from the facilities of Roberts Consolidated Industries at or near (a) Dayton, OH, (b) Kalamazoo, MI, and (c) points in Los Angeles County, CA, to points in the United States (except AK and HI). (Hearing site: Sioux City, IA, or Denver, CO.)

MC 134286 (Sub-113F), filed May 17, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (same address as applicant). Transporting *dry spaghetti and macaroni products* (except in bulk), from the facilities of C.F. Mueller Company, at or near Jersey City, NJ, to points in IL. (Hearing site: Sioux City, IA, or Denver, CO.)

MC 134286 (Sub-114F), filed May 17, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (same address as applicant). Transporting (1) *chemicals* and (2) *materials, equipment, and supplies used in the manufacture and distribution of chemicals* (except in bulk), from the facilities of National Starch and Chemical Company at or near (a) Meredosia, IL, to points in CT, DE, MA, MN, MD, NJ, NY, PA, and VA, and (b) Indianapolis, IN, to points in IA, KS, NE, NO, and CO, restricted to the transportation of traffic originating at the named origins and destined to the indicated destinations. (Hearing site: Sioux City, IA, or Denver, CO.)

MC 134286 (Sub-115F), filed May 17, 1979. Applicant: ILLINI EXPRESS, INC., P.O. Box 1564, Sioux City, IA 51102. Representative: Julie Humbert (same address as applicant). Transporting *animal feed* (except in bulk), from the facilities of Kal Kan Foods Incorporated at or near (a) Columbus, OH, and (b) Mattoon, IL, to points in CO, SD, NE, KS, MN, IA, IL, IN, MI, MO, GA, NY, NJ, MA, OH, and CT. (Hearing site: Columbus, OH, or Denver, CO.)

MC 134477 (Sub-333F), filed March 28, 1979. Applicant: SCHANNO TRANSPORTATION, INC., 5 West Mendota Road, West St. Paul, MN 55118. Representative: Robert P. Sack, P.O. Box 6010, West St. Paul, MN 55118.

Transporting *general commodities* (except those of unusual value, classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment), from points in MA and VT, to points in CO, IL, IN, KS, MI, MN, MO, OH, OK, TX, and WI, restricted to the transportation of traffic originating at the facilities of New England Shipping Association Co-operative at the named origins and destined to the indicated destinations. (Hearing site: St. Paul, MN.)

MC 134477 (Sub-347F), filed May 14, 1979. Applicant: SCHANNO TRANSPORTATION, INC., 5 West Mendota Rd., West St. Paul, MN 55118. Representative: Robert P. Sack, P.O. Box 6010, West St. Paul, MN 55118. Transporting *confectionery products* (except in bulk), from the facilities of Pearson Candy Company, Inc. at or near St. Paul, MN, to points in AR, GA, (except Atlanta), IL, IN, IA, KS, KY, MI, MO, NE, NC, OH, OK, SC, and TN. (Hearing site: St. Paul, MN.)

MC 134477 (Sub-349F), filed May 14, 1979. Applicant: SCHANNO TRANSPORTATION, INC., 5 West Mendota Rd., West St. Paul, MN 55118. Representative: Robert P. Sack, P.O. Box 6010, West St. Paul, MN 55118. Transporting *meats, meat products and meat byproducts, and articles distributed by meat-packing houses*, as described in sections A and C of Appendix I to the report in *Descriptions in Motor Carrier Certificates*, 61 M.C.C. 209 and 766 (except hides and skins and commodities in bulk), from the facilities of John Morrell & Co., at or near St. Paul, MN, to points in IL, IN, MI, OH, and WI, restricted to the transportation of traffic originating at the named origin. (Hearing site: St. Paul, MN.)

MC 135797 (Sub-203F), filed April 30, 1979. Applicant: J. B. HUNT TRANSPORT, INC., P.O. Box 130, Lowell, AR 72745. Representative: Paul R. Bergant (same address as applicant). Transporting *petroleum products and lubricating oils*, (except commodities in bulk), from the facilities of Mobil Oil Corporation at or near Beaumont, TX, to points in AL, AR, CA, GA, IL, KS, LA, MA, MI, MN, MO, MS, NE, NJ, NY, NM, OH, OK, PA, TX, and WI. (Hearing site: Houston, TX, or Washington, DC.)

MC 138157 (Sub-155F), filed May 14, 1979. Applicant: SOUTHWEST EQUIPMENT RENTAL INC., d/b/a SOUTHWEST MOTOR FREIGHT, P.O. Box 9596, Chattanooga, TN 37412. Representative: Patrick E. Quinn (same address as applicant). Transporting *such commodities as are dealt in or used by retail pharmacy stores* (except

commodities in bulk, and those which by reason of size or weight require the use of special equipment), between Bedford Park, IL, Smyrna, GA, Grand Prairie, TX, and City of Industry and Los Angeles, CA, on the one hand, and, on the other, points in the United States (except AK and HI), restricted to the transportation of traffic originating at or destined to the facilities of Valu-Rite Pharmacy Division of Foremost-McKesson, Inc. (Hearing site: San Francisco or Los Angeles, CA.)

Note.—Dual operations may be involved.

MC 140846 (Sub-11F), filed April 3, 1979. Applicant: CENTRAL DELIVERY SERVICE OF MASSACHUSETTS, INC., 125 Magazine Street, Boston, MA 02119. Representative: Jeremy Kahn, Suite 733 Investment Building, 1511 K Street, NW., Washington, DC 20005. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *such commercial papers, documents, and written instruments* (except currency and negotiable securities), as are used in the business of banks and banking institutions between the facilities of Federal Reserve Bank (a) Boston, MA, (b) Windsor Locks, CT, and (c) Lewiston, ME, on the one hand, and, on the other, points in CT, ME, MA, NH, RI, and VT, under continuing contract(s) with the Federal Reserve Bank of Boston, Boston, MA. (Hearing site: Boston, MA.)

Note.—Dual operations may be involved.

MC 142096 (Sub-8F), filed April 29, 1979. Applicant: MILLER BROS. TRUCKING CO., INC., 4100 West Mitchell Street, Milwaukee, WI 53215. Representative: James A. Spiegel, Olde Towne Office Park, 6425 Odana Road, Madison, WI 53719. Transporting *paper towels, napkins, facial tissue, and toilet tissue*, from the facilities of American Can Company at Green Bay and Milwaukee, WI, to Chicago, IL. (Hearing site: Milwaukee, WI.)

MC 143127 (Sub-41F), filed May 20, 1979. Applicant: K. J. TRANSPORTATION, INC., 1000 Jefferson Road, Rochester, NY 14623. Representative: S. Michael Richards, P.O. Box 225, Webster, NY 14580. Transporting (1) *office equipment and office supplies*, and (2) *materials, equipment, and supplies* used in the manufacture and distribution of the commodities named in (1) above, (except commodities in bulk), between the facilities of Burroughs Corporation at or near (a) Park Ridge, NJ, (b) Rochester, NY, (c) Bardonia, KY, and (d) City of Industry, CA. (Hearing site: Newark, NJ, or New York, NY.)

Note.—Dual operations may be involved.

MC 143696 (Sub-14F), filed May 17, 1979. Applicant: AMERICAN INDUSTRIAL TRANSPORTATION, INC., P.O. Box 1416, Henderson, TX 75652. Representative: Hugh T. Matthews, 2340 Fidelity Union Tower, Dallas, TX 75201. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1) *compressors and power equipment*, and (2) *parts and accessories* used in the rebuilding and maintenance of the commodities in (1) above, between Houston, TX, on the one hand, and, on the other, points in the United States (except AK and HI), under a continuing contract(s) with Price Compressor Co., Inc. of Houston, TX. (Hearing site: Dallas, TX.)

MC 144326 (Sub-12F), filed May 14, 1979. Applicant: RICHARDSON TRUCKING, INC., P.O. Box 866, Greeley, CO 80631. Representative: Fred Cantonwine (same address as applicant). Transporting *malt beverages*, from points in AZ, CA, IL, MN, MO, OR, TX, WA, and WI, to points in CO and WY. (Hearing site: Denver, CO.)

MC 145557 (Sub-7F), filed May 10, 1979. Applicant: LIBERTY TRANSPORT, INC., 4614 South 40th Street, St. Joseph, MO 64503. Representative: Tom B. Kretsinger, 20 East Franklin, Liberty, MO 64068. Transporting *meats, meat products and meat byproducts, and articles* distributed by meat-packing houses, as described in sections A and C of Appendix I to the report in *Descriptions in Motor Carrier Certificates*, 61 M.C.C. 209 and 766, (except hides and commodities in bulk), from the facilities of Dubuque Packing Co., at or near LeMars, IA, to points in the United States (except AK and HI). (Hearing site: Kansas City, MO.)

MC 145577 (Sub-7F), filed May 10, 1979. Applicant: GULLETT-GOULD, LTD, P.O. Box 406, Union City, IN 47390. Representative: Jerry B. Sellman, 50 West Broad Street, Columbus, OH 43215. Transporting *iron and steel articles*, from Williamsport, Avis, and Montoursville, PA, to points in CA. (Hearing site: Columbus, OH, or Washington, DC.)

MC 146826 (Sub-1F), filed April 23, 1979. Applicant: SOUTHWEST FREIGHT, INC., 1305 Rye Street, Houston, TX 77029. Representative: David B. Schneider, P.O. Box 1540, Edmond, OK 73034. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *such commodities* as are dealt in by retail department stores, between Houston

and Dallas, TX, on the one hand, and, on the other, points in TX and LA, under continuing contract(s) with J.C. Penney Co., Inc., of New York, NY. (Hearing site: Houston, TX.)

MC 146826 (Sub-6F), filed April 30, 1979. Applicant: SOUTHWEST FREIGHT, INC., 1305 Rye Street, Houston, TX 77029. Representative: David B. Schneider, P.O. Box 1540, Edmond, OK 73034. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *such commodities* as are dealt in by retail department stores, between points in TX, LA, MS, and AL, under continuing contract(s) with K/Mart Corporation of Troy, MI. (Hearing site: Houston, TX.)

MC 147167F, filed April 22, 1979. Applicant: T. C. SPIRES, INC., 1500 East Chestnut Street, Lancaster, OH 43130. Representative: Lewis S. Witherspoon, 88 East Broad Street, Columbus, OH 43215. Transporting *commodities* which because of their size or weight require the use of special equipment, between points in Athens, Belmont, Coshocton, Delaware, Fairfield, Fayette, Franklin, Gallia, Guernsey, Harrison, Hocking, Jackson, Knox, Lawrence, Licking, Lucas, Madison, Marion, Medina, Meigs, Monroe, Morgan, Morrow, Muskingum, Noble, Perry, Pickaway, Pike, Ross, Scioto, Tuscarawas, Union, Vinton, Washington, and Wood Counties, OH, on the one hand, and, on the other, points in AL, CT, DE, FL, GA, IL, IN, KY, ME, MD, MA, MI, MS, NH, NJ, NY, NC, OH, PA, RI, SC, TN, VA, VT, WV, WI, and DC. Condition: The person or persons who appear to be engaged in common control must either file an application under 49 USC § 11343(a) formerly section 5(2) of the Interstate Commerce Act, or submit an affidavit indicating why such approval is unnecessary. (Hearing site: Columbus, OH.)

MC 147426F, filed May 14, 1979. Applicant: McDOWELL TRUCKING, INC., 4622 South Bishop, Chicago, IL 60609. Representative: Robert J. Gill, 29 South La Salle Street, Suite 740, Chicago, IL 60603. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *toilet preparations, foodstuffs, and chemicals*, (except commodities in bulk), between the facilities of Armour-Dial, Inc., at Montgomery and Chicago, IL, restricted to the transportation of traffic having a prior or subsequent movement by rail, under continuing contract(s) with Armour-Dial, Inc., Phoenix, AZ. (Hearing site: Chicago, IL, or Washington, DC.)

## Volume No. 207

Decided: Nov. 2, 1979.

By the Commission, Review Board Number 3, Members Parker, Fortier and Hill.

MC 200 (Sub-352F), filed May 11, 1979. Applicant: RISS INTERNATIONAL CORPORATION, 903 Grand Ave., Kansas City, MO 64106. Representative: Ivan E. Moody (same address as applicant). Transporting *automobile parts and automobile accessories* (except commodities in bulk), serving Kokomo, IN, as an intermediate point on U.S. Hwy 31 and as an off-route point in connection with applicant's authorized regular-route operations on U.S. Hwys 41, 24, and 52. (Hearing site: Kansas City, MO.)

MC 200 (Sub-356F), filed June 1, 1979. Applicant: RISS INTERNATIONAL CORPORATION, 903 Grand Avenue, Kansas City, MO 64106. Representative: Ivan E. Moody (same address as applicant). Transporting *meats, meat products, and meat byproducts, and articles distributed by meat packing-houses*, as described in sections A and C of Appendix I to the report in *Descriptions in Motor Carrier Certificates*, 61 M.C.C. 209 and 766 (except hides and commodities in bulk), from the facilities of Wilson Foods Corporation, at Logansport, IN, to points in CT, DE, ME, MD, MA, NH, NY, NJ, PA, RI, VT, VA, and DC, restricted to the transportation of traffic originating at the named origin and destined to the indicated destinations. (Hearing Site: Kansas City, MO.)

MC 2900 (Sub-371F), filed May 21, 1979. Applicant: RYDER TRUCK LINES, INC., 2050 Kings Road, P.O. Box 2408-R, Jacksonville, FL 32203. Representative: John Carter (same address as applicant). Transporting *pre-fabricated houses or buildings and component parts*, from Wyoming, MN, to points in the United States (except AK and HI), restricted to the transportation of traffic originating at the named origin. (Hearing site: Minneapolis, MN.)

MC 5470 (Sub-191F), filed May 23, 1979. Applicant: TAJON, INC., R.D. 5, Mercer, PA 16137. Representative: Brian L. Troiano, 918-16th Street, NW, Washington, DC 20006. Transporting *commodities in bulk*, in dump vehicles, between those points in the United States in and east of ND, SD, NE, KS, OK, and TX, restricted to the transportation of traffic originating at or destined to the facilities of Brockway Glass Co., Inc. (Hearing Site: Washington, DC, or Pittsburgh, PA.)

MC 7840 (Sub-14F), filed May 23, 1979. Applicant: ST. LAWRENCE FREIGHTWAYS, INC., 650 Cooper

Street, Watertown, NY 13601. Representative: E. Stephen Heisley, 805 McLachlen Bank Building, 666 Eleventh St, NW, Washington, DC 20001. Transporting (1) *paper and paper products, and plastic film*, and (2) *material, equipment and supplies used and useful in the manufacture and shipping of the commodities named in (1) above*, between Carthage and South Glens Falls, NY, Florence, KY, Newark, DE, Greensburg, IN, and New Castle, DE, on the one hand, and, on the other, points in CT, DE, IL, IN, IA, KY, MA, MD, ME, MI, MO, NJ, NH, NY, NC, OH, PA, RI, SC, VA, VT, WV, and DC. (Hearing site: St. Louis, MO.)

MC 8771 (Sub-53F), filed May 24, 1979. Applicant: SAW MILL SUPPLY, INC., 3599 Old Gettysburg Road, Camp Hill, PA 17011. Representative: John R. Sims, Jr., 915 Pennsylvania Building, 425-13th Street, NW, Washington, DC 20004. Transporting (1) *iron and steel articles, hydraulic cylinders, fluid power pumps, fluid power motors, and hydraulic valves*, from the facilities of (a) Commercial Shearing, Inc., at or near Youngstown, OH, Berkley Springs, WV, and Hagerstown, MD; (b) Commercial Stamping and Forging, at or near Bedford Park, IL; (c) Gregory Galvanizing Company, at or near Canton, OH; (d) Durabond Corporation, at or near Export, PA; (e) Young Galvanizing Company, at or near Pulaski, PA; and (f) Syro Steel Corporation, at or near Girard, OH, to points in the United States (except AK and HI); and (2) *plant machinery and equipment*, between the facilities of the named shippers in (1) above. (Hearing site: Washington DC.)

MC 17000 (Sub-15F), filed June 4, 1979. Applicant: HOHENWALD TRUCK LINES, INC., P.O. Box 196, Hohenwald, TN 38462. Representative: Robert L. Baker, 618 United American Bank Bldg., Nashville, TN 37219. Transporting (1) *automotive parts*, and (2) *materials, equipment, and supplies used in the manufacture and distribution of automotive parts*, between Linden, TN, on the one hand, and, on the other, points in KY, MI, and OH. (Hearing site: Washington, DC, or Nashville, TN.)

MC 35320 (Sub-330F), filed June 4, 1979. Applicant: T.I.M.E.-DC, INC., P.O. Box 2550, Lubbock, TX 79408. Representative: Kenneth G. Thomas (same address as applicant). Transporting *general commodities* (except those of unusual value, classes A and B explosives, household goods as defined by the Commission, commodities in bulk, those requiring special equipment, ammunition, and parts for ammunition), serving the

facilities of Structural Stoneware, Inc., at or near Minerva, OH, as an off-route point in connection with applicant's otherwise authorized regular-route operations. (Hearing site: Akron, OH, or Washington, DC.)

MC 47171 (Sub-129F), filed June 4, 1979. Applicant: COOPER MOTOR LINES, INC., P.O. Box 2820, Greenville, SC 29602. Representative: Harris G. Andrews (same address as applicant). Transporting *textile products*, from Greenville, SC, and Lincolnton, NC, to Lewisburg, PA, and North Windham, CT. (Hearing site: Washington, DC, or Atlanta, GA.)

MC 53841 (Sub-32F), filed June 1, 1979. Applicant: W. H. CHRISTIE & SONS, INC., Box 517, East State St., Knox, PA 16232. Representative: John A. Pillar, 1500 Bank Tower, 307 Fourth Ave., Pittsburgh, PA 15222. Transporting *paper and paper products* (except in bulk), from Cicero, IL, to points in IN, KY, MI, NY, OH, PA, and WV. (Hearing site: Pittsburgh, PA, or Washington, DC.)

MC 62661 (Sub-2F), filed May 29, 1979. Applicant: MATHEWS TRUCKING CO., INC., P.O. Box 78134, Shreveport, LA 71107. Representative: Tom E. Moore, P.O. Drawer 846, Ruston, LA 71270. Transporting *machinery, equipment, materials, and supplies used in or in connection with the discovery, development, production refining, manufacture, processing, storage, transmission, and distribution of natural gas and petroleum and their products and byproducts*, between points in AR, LA, and TX. (Hearing site: Shreveport or Baton Rouge, LA.)

MC 77061 (Sub-17F), filed May 22, 1979. Applicant: SHERMAN BROS., INC., 29534 Airport Road, P.O. Box 706, Eugene, OR 97440. Representative: J. Keith Sherman (same address as applicant). Transporting (1) *sawmill machinery, logging and contractors' equipment and parts and components*; (2) *road-building materials and supplies*, (except commodities in bulk), and (3) *iron and steel articles*, between points in Lane County, OR, and points in WA. (Hearing site: Eugene or Portland, OR.)

MC 89861 (Sub-15F), filed June 1, 1979. Applicant: GOUVERNEUR TRUCKING, INC., Box 114, Gouverneur, NY 13642. Representative: John L. Alfano, 550 Mamaroneck Ave., Harrison, NY 10528. Transporting *fabricated structural steel*, from Conklin and Gouverneur, NY, and Winchester, VA, to points in CT, IL, IN, KY, ME, MD, MA, MI, NH, NJ, NC, OH, PA, RI, SC, TN, VT, VA, and WV. (Hearing site: Albany, NY.)

MC 94201 (Sub-175F), filed May 25, 1979. Applicant: BOWMAN

TRANSPORTATION, INC., P.O. Box 17744, Atlanta, GA 30316.  
 Representative: Maurice F. Bishop, 601-09 Frank Nelson Bldg., Birmingham, AL 35203. Transporting *general commodities* (except those of unusual value, classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment), serving the facilities of Buddy Schoellkopf Products, Inc., at or near Mineola, TX, as an off-route point in connection with applicant's otherwise authorized regular-route operations. (Hearing site: Dallas, TX, or Atlanta, GA.)

MC 97251 (Sub-6F), filed May 31, 1979. Applicant: TURNER TRUCKING COMPANY, INC., 1215 West Main St., Lebanon, IN 46052. Representative: Alki E. Scopelitis, 1301 Merchants Plaza, Indianapolis, IN 46204. Transporting *printing ink*, from the facilities of Sun Chemical Corporation, General Printing Ink Division, at Frankfort, IN, to points in IL, KY, and OH. (Hearing site: Indianapolis, IN, or Chicago, IL.)

MC 103051 (Sub-479F), filed May 21, 1979. Applicant: FLEET TRANSPORT COMPANY, INC., 934 44th Avenue No., Nashville, TN 37209. Representative: Russell E. Stone, P.O. Box 90408, Nashville, TN 37209. Transporting *commodities*, in bulk, between points in the United States (except AK and HI), restricted to the transportation of traffic originating at or destined to facilities of Union Camp Corporation. (Hearing site: Atlanta, GA, or Nashville, TN.)

Note.—Dual operations may be involved.

MC 106920 (Sub-82F), filed May 31, 1979. Applicant: RIGGS FOOD EXPRESS, INC., West Monroe St., P.O. Box 26, New Bremen, OH 45869. Representative: David C. Venable, 805 McLachlen Bank Bldg., 686 Eleventh St., N.W., Washington, DC 20001. Transporting *frozen foods*, from Fogelsville, Lake Winola, Philadelphia, and Pottstown, PA, to points in FL, GA, IL, IN, KS, KY, MI, MO, NC, OH, SC, TN, and WI. (Hearing site: Philadelphia, PA, or Washington, DC.)

MC 108341 (Sub-154F), filed May 29, 1979. Applicant: MOSS TRUCKING COMPANY, INC., 3027 N. Tryon St., P.O. Box 26125, Charlotte, NC 28213. Representative: Jack F. Counts (same address as applicant). Transporting (1) *adhesives, building materials, composition boards, mineral fiber products, paper, wood fiber products, gypsum and gypsum products, and lime* (except liquid in bulk), and (2) *materials and supplies* used in the manufacture, installation, and distribution of the

commodities named in (1) above (except commodities in bulk), between points in AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, and WV, restricted to the transportation of traffic originating at or destined to the facilities of United States Gypsum Company. (Hearing site: Chicago, IL, or Washington, DC.)

MC 108341 (Sub-156F), filed June 4, 1979. Applicant: MOSS TRUCKING COMPANY, INC., 3027 N. Tryon St., P.O. Box 26125, Charlotte, NC 28213. Representative: Jack F. Counts (same address as applicant). Transporting *steel piling*, between the facilities of R. C. Stanhope, Inc., at or near (a) Pittsburgh, PA, (b) Old Bridge, NJ, and (c) Providence, RI, on the one hand, and, on the other, points in AL, FL, GA, KY, MS, NC, SC, TN, VA, and WV. (Hearing site: New York, NY, or Washington, DC.)

MC 108341 (Sub-154F), filed May 29, 1979. Applicant: MOSS TRUCKING COMPANY, INC., 3027 N. Tryon St., P.O. Box 26125, Charlotte, NC 28213. Representative: Jack F. Counts (same address as applicant). Transporting (1) *contractor's, mining, and industrial equipment*; (2) *self-propelled articles*; and (3) *parts, materials, and supplies* used in the manufacture and distribution of the commodities named in (1) and (2) above (except commodities in bulk), between the facilities of Joy Manufacturing Company, at or near Franklin, PA, Birmingham, AL, Claremont, NH, Buffalo, NY, Michigan City, IN, Wilson, NC, New Philadelphia, OH, Colorado Springs, and Denver, CO, and Wheeling, WV, on the one hand, and, on the other, points in the United States (except AK and HI). (Hearing site: Pittsburgh, PA, or Washington, DC.)

MC 108651 (Sub-25F), filed June 1, 1979. Applicant: ROY B. MOORE, INC., P.O. Box 628, Kingsport, TN 37662. Representative: Daniel H. Moore (same address as applicant). Transporting (1) *paper and paper products*, from the facilities of Bowater Southern Paper Corporation, at or near Calhoun, TN, to points in MD, NY, PA, VA, WV, and DC; and (2) *equipment, materials, and supplies* used in the manufacture and distribution of the commodities named in (1) above (except commodities in bulk), in the reverse direction. (Hearing site: Kingsport, TN, or Washington, DC.)

MC 109891 (Sub-42F), filed May 31, 1979. Applicant: INFINGER TRANSPORTATION COMPANY, INC., 2811 Carner Ave., P.O. Box 7398, Charleston Heights, SC 29405. Representative: Frank B. Hand, Jr., P.O. Drawer C, Berryville, VA 22611. Transporting *petroleum and petroleum products*, in containers, from Charleston,

SC, to points in NC and VA. (Hearing site: Columbia, SC, or Washington, DC.)

MC 111231 (Sub-270F), filed May 29, 1979. Applicant: JONES TRUCK LINES, INC., 610 East Emma Avenue, Springdale, AR 72764. Representative: John C. Everett, P.O. Box A, 140 East Buchanan, Prairie Grove, AR 72753. Transporting (1) *paper, paper products, and woodpulp*; and (2) *materials, equipment, and supplies* used in the production and distribution of the commodities named in (1) above, (except commodities in bulk in tank vehicles), between the facilities of International Paper Company, at those points in the United States in and east of ND, SD, NE, KS, OK, and TX, on the one hand, and, on the other, those points in the United States in and east of ND, SD, NE, KS, OK, and TX, restricted to the transportation of traffic originating at or destined to the facilities of International Paper Company. (Hearing site: Mobile or Birmingham, AL.)

MC 118570 (Sub-6F), filed May 29, 1979. Applicant: DeFAZIO EXPRESS, INC., 1028 Springbrook Ave., Moosic, PA 18507. Representative: Edward M. Alfano, 550 Mamaroneck Ave., Harrison, NY 10528. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1) *such commodities* as are dealt in by a manufacturer of carbonated beverages, and (2) *materials, equipment, and supplies* used in the manufacture and distribution of carbonated beverages, (except commodities in bulk), from the facilities of Cantrell & Cochrane, Inc., at Elizabeth and Garfield, NJ, to Baltimore and Landover, MD, Camp Hill, Carlisle, Gettysburg, Mechanicsburg, and Shiremanstown, PA, and those points in PA on and east of U.S. Hwy 15, and Washington, DC, under continuing contract(s) with Cantrell & Cochrane, Inc., of Elmwood Park, NJ. (Hearing site: New York, NY.)

Note.—Dual operations may be involved.

MC 118831 (Sub-179F), filed June 4, 1979. Applicant: CENTRAL TRANSPORT, INCORPORATED, P.O. Box 7007, High Point, NC 27264. Representative: Ben H. Keller III (same address as applicant). Transporting *chemicals*, in bulk, in tank vehicles, from Damascus, VA, to points in NC and SC. (Hearing site: Washington, DC, or Trenton, NJ.)

MC 120891 (Sub-2F), filed May 18, 1979. Applicant: MERLE SWANSON AND MARGARET SWANSON, a partnership, P.O. Box 106, Mina, NV 89422. Representative: Mike Soumbeniotis, 402 North Division Street,

P.O. Box 646, Carson City, NV 89701. Transporting *general commodities*, between points within a 100-mile radius of Tonopah, NV, including Tonopah, NV; and between points within a 100-mile radius of Tonopah, NV, including Tonopah, NV, on the one hand, and, on the other, points in NV.

Note.—Applicant holds a certificate of Registration in MC 120891 (Sub-No. 1). Applicant seeks to convert the Certificate of Registration to a Certificate of Public Convenience and Necessity.

MC 121060 (Sub-108F), filed May 29, 1979. Applicant: ARROW TRUCK LINES, INC., Post Office Box 1416, Birmingham, AL 35201. Representative: William P. Jackson, Jr., 3426 N. Washington Blvd., Post Office Box 1240, Arlington, VA 22210. Transporting *building and construction materials and materials and supplies* used in the manufacture and distribution of building and construction materials (except in bulk), between the facilities of The Celotex Corporation, at or near Largo, IN, on the one hand, and, on the other, those points in the United States in and east of ND, SD, NE, KS, OK, and TX. (Hearing site: Tampa, FL, or Washington, DC.)

MC 124170 (Sub-135F), filed May 31, 1979. Applicant: FROSTWAYS, INC., 3000 Chrysler Service Drive, Detroit, MI 48207. Representative: William J. Boyd, 2021 Midwest Road, Suite 205, Chicago, IL 60521. Transporting *foodstuffs*, in vehicles equipped with mechanical refrigeration, from the facilities of Capital City Products Co., at or near Columbus, OH, to points in AL, CT, DE, FL, GA, IL, IN, IA, KY, ME, MD, MA, MI, MN, NJ, NY, NC, PA, RI, SC, TN, VA, VT, WI, WV, and DC, restricted to the transportation of traffic originating at the named origin. (Hearing site: Columbus, OH, or Detroit, MI.)

MC 133591 (Sub-70F), filed May 29, 1979. Applicant: WAYNE DANIEL TRUCK, INC., Post Office Box 303, Mount Vernon, MO 65712. Representative: Charles A. Daniel (same address as applicant). Transporting (1) *radios, television, stereophonic equipment, videotape equipment, and electrical appliances*; and (2) *parts, supplies, materials, and components* used for assembling of the commodities named in (1) above, (1) from Springfield, MO, to points in TX, and (2) between Springfield, MO, Brownsville and McAllen, TX. (Hearing site: Chicago, IL, or Washington, DC.)

Note.—Dual operations may be involved.

MC 133591 (Sub-71F), filed May 29, 1979. Applicant: WAYNE DANIEL TRUCK, INC., P. O. Box 303, Mount Vernon, MO 65712. Representative:

Charles A. Daniel (same address as applicant). Transporting *radios, televisions, stereophonic equipment, videotape equipment, and electrical appliances*, from the facilities of Zenith Radio Corporation, at or near Springfield, MO, to points in NM, CO, UT, ID, WA, OR, CA, NV, and AZ. (Hearing site: Chicago, IL, or Washington, DC.)

Note.—Dual operations may be involved.

MC 134531 (Sub-16F), filed May 23, 1979. Applicant: AGGREGATE HAULERS, INC., Route 2, box 559-A, W. Columbia, SC 29169. Representative: Eric Meierhoefer, Suite 423, 1511 K Street NW., Washington, DC 20005. Transporting *dry fertilizer and fertilizer materials* (except in tank and hopper-type vehicles), between points in SC, GA, TN, and NC. (Hearing site: Columbia, SC.)

MC 135070 (Sub-64F), filed May 21, 1979. Applicant: JAY LINES, INC., P.O. Box 30180, Amarillo, TX 79120. Representative: Gailyn L. Larsen, P.O. Box 82816, Lincoln, NE 68501. Transporting *appliances, air conditioners, and parts and accessories* for appliances and air conditioners, from the facilities of White Consolidated Industries, Inc., at or near Greenville, Muskegon, and Grand Rapids, MI, and Webster City, IA, to points in OK, NM, and TX. (Hearing site: Grand Rapids, MI, or Amarillo, TX.)

Note.—Dual operations may be involved.

MC 135170 (Sub-41F), filed May 25, 1979. Applicant: TRI-STATE ASSOCIATES, INC., P.O. Box 188, Federalsburg, MD 21632. Representative: James C. Hardman, 33 North LaSalle St., Chicago, IL 60602. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1) *containers, container closures, glassware, packaging products, container components, and scrap*; and (2) *material, equipment, and supplies*, used in the manufacture and distribution of the commodities named in (1) above (except commodities in bulk, in tank vehicles, and those which because of size and weight require the use of special equipment), between those points in the United States in and east of WI, IL, KY, TN, and MS, under continuing contract(s) with Owens-Illinois, Inc., of Toledo, OH. (Hearing site: Washington, DC, or Columbus, OH.)

MC 135691 (Sub-33F), filed May 24, 1979. Applicant: DALLAS CARRIERS CORP., P.O. Box 402626, Dallas, TX 75240. Representative: J. MAX HARDING, P.O. Box 82028, Lincoln, NE

68501. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1) *insecticides and pesticides*, (except in bulk) (a) from Clarksville, NJ, to points in the United States (except AK and HI) and (b) from Greenville and Mauldin, SC, Danville and Momence, IL, Piscataway and Metuchen, NJ, Atlanta, GA, Santa Fe Springs, CA, and Berkeley, RI, to points in the United States (except AK and HI); and (2) *buffing compounds, polishing compounds, cleaning compounds, solvents, starch, bleach, lubricating oil, carbon, gum removing compounds, sludge removing compounds, disinfectants, softeners, sizing, janitorial supplies, and janitorial equipment*, (except commodities in bulk), from Metuchen, NJ, to points in the United States (except AK and HI), under continuing contract(s) with Texize Chemical Company, of Greenville, SC. (Hearing site: Washington, DC.)

MC 135691 (Sub-34F), filed May 29, 1979. Applicant: DALLAS CARRIERS CORP., P.O. Box 402626, Dallas, TX 75240. Representative: J. Max Harding, P.O. Box 82028, Lincoln, NE 68501. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1)(a) *automotive parts and accessories, automotive jacks and cranes* (not self-propelled), *hand, electric, and pneumatic tools, advertising materials, premium racks, display cases and signs* (except commodities which by reason of size or weight require the use of special equipment), (b) *materials, supplies, and equipment*, used in the manufacture and distribution of the commodities named in (a) above (except commodities in bulk, in tank vehicles, and commodities which by reason of size or weight require the use of special equipment), between the facilities of Tenneco Automotive, a Division of Tenneco, Inc., at or near Jonesboro and Paragould, AR, Batavia, IL, Lake Mills, IA, Jackson, MI, Aberdeen and Southaven, MS, Seward and Cozad, NE, Arden, NC, Newark, OH, Harrisonburg, VA, Racine, WI, Greenville, TX, and Hartwell, GA; and (2)(a) *automotive parts and accessories, automotive jacks and cranes* (not self-propelled), *hand, electric, and pneumatic tools, advertising materials, premium racks, display cases and signs* (except commodities which by reason of size or weight require the use of special equipment), from Cozad, NE, Hartwell, GA, and Paragould, AR, to points in the United States (except AK and HI) and (b) *materials, supplies, and equipment*, used in the manufacture and distribution

of the commodities named in (a) above, from points in the United States (except AK and HI), to the facilities of Tenneco Automotive, a Division of Tenneco, Inc., at or near Cozad, NE, Hartwell, GA, and Paragould, AR, under continuing contract(s) with Tenneco Automotive, a Division of Tenneco, Inc., of Deerfield, IL. (Hearing site: Chicago, IL.)

MC 140601 (Sub-13F), filed May 29, 1979. Applicant: BILLY FRANK, d.b.a. FRANK BROS., 349 Abbott Avenue, Hillsboro, TX 76645. Representative: Charles E. Munson, P.O. Box 1945, 500 West Sixteenth St., Austin, TX 78767. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1) *iron and steel articles, and pipe*, from the facilities of Fort Worth Pipe and Supply Company, at or near Conroe, TX, to points in the United States [except AK and HI]; and (2) *materials, equipment, and supplies*, used in the manufacture and distribution of the commodities named in (1) above, in the reverse direction, under continuing contract(s) with Fort Worth Pipe and Supply Company, of Fort Worth, TX. (Hearing site: Dallas, TX.)

MC 141721 (Sub-3F), filed May 21, 1979. Applicant: DFC TRANSPORTATION COMPANY, a corporation, 3600 North River Road, Franklin Park, IL 60131. Representative: Edward G. Bazelon, 39 South LaSalle Street, Chicago, IL 60603. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *coffee, tea, beverage mix, and beverage kits and parts for beverage kits*, from the facilities of CFS Continental, Inc., at Houston, TX, to Chicago, IL, Detroit, MI, and Indianapolis, IN. (Hearing site: Chicago, IL.)

MC 142181 (Sub-8F), filed May 25, 1979. Applicant: LIBERTY CONTRACT CARRIER, INC., P.O. Box 1104, Nashville, TN 37202. Representative: Robert L. Baker, 618 United American Bank Bldg., Nashville, TN 37219. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *foodstuffs and commodities* used in the manufacture and distribution of foodstuffs (except commodities in bulk, in tank vehicles), between the facilities of Ragu' Foods, Inc., at or near Evansville, IN, and Henderson and Owensboro, KY, on the one hand, and, on the other, points in AL, AR, FL, GA, IL, IN, IA, KS, LA, MN, MS, MO, NE, NC, ND, OH, OK, SC, SD, TN, TX, WV, and WI, under continuing contract(s) with Ragu' Foods, Inc., of Greenwich, CT.

(Hearing site: Washington, DC, or Nashville, TN.)

MC 142941 (Sub-49F), filed May 22, 1979. Applicant: SCARBOROUGH TRUCK LINES, INC., 1313 North 25th Avenue, Phoenix, AZ 85009. Representative: Lewis P. Ames, 111 West Monroe, 10th Floor, Phoenix, AZ 85003. Transporting *alcoholic beverages* (except in bulk), (1) from points in CO, IL, IN, KY, MI, MO, NJ, NY, OH, PA, TN, and WI, to points in NV, (2) from Detroit, MI, Lawrenceburg, IN, and Louisville, KY, to Salt Lake City, UT, and (3) from Plainfield, IL, and Owensboro, KY, to Phoenix and Tucson, AZ. (Hearing site: Las Vegas, NV, or Phoenix, AZ.)

MC 144330 (Sub-73F), filed June 4, 1979. Applicant: UTAH CARRIERS, INCORPORATED, P.O. Box 1218, Freeport Center, Clearfield, UT 84018. Representative: Charles D. Midkiff (same address as applicant). Transporting *lumber and wood products*, (except in bulk), from Dillon, MT, to points in AR, AZ, CA, CO, NM, OK, TX, UT, WY, and ID, restricted to the transportation of traffic originating at the named origin and destined to the indicated destinations. (Hearing site: Billings, MT, or Salt Lake City, UT.)

MC 144481 (Sub-4F), filed May 29, 1979. Applicant: MINNESOTA AIR EXPRESS, INC., 1208 W. Center St., Rochester, MN 55901. Representative: James F. Finley, 301 Midwest Federal Bldg., St. Paul, MN 55101. Transporting *general commodities* (except those of unusual value, classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment), between the Minneapolis-St. Paul International Airport, at or near Minneapolis, MN, on the one hand, and, on the other, points in La Crosse County, WI, and Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, Waseca, and Winona Counties, MN, restricted to the transportation of traffic having a prior or subsequent movement by air. (Hearing site: Minneapolis, MN.)

MC 145150 (Sub-7F), filed May 17, 1979. Applicant: HAYNES, TRANSPORT CO. INC., Box 9, R.R. 2, Salina, KS 67401. Representative: Clyde N. Christley, Kansas Credit Union Building, 1010 Tyler, Suite 110L, Topeka, KS 66612. Transporting *jet fuel, grade JP4*, in bulk, from the facilities of the E-Z Serve, Inc. Refinery, at or near Shallow Water, KS, to FP2500 Peterson AFB, CO, FP4621 McConnell AFB, KS, FP6152 KS ANG Forbes ANGB, KS W55CVC Ft Riley, KS, EZ9428 Boeing Co., Wichita, KS, EY9111 Cessna Co., Wichita, KS, FP6061 CO

ANG Buckley, AFB, Denver, CO, W51HU8 Ft. Carson, Butts Field, CO, and FP6501 WY ANG Cheyenne, WY. (Hearing site: Kansas City, MO.)

MC 145381 (Sub-4F), filed May 23, 1979. Applicant: S&P TRUCKING CO., INC., P.O. Box 1058, Fletcher, NC 28732. Representative: Eric Meierhoefer, Suite 423, 1511 K Street, NW, Washington, DC 20005. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *boilers, baseboard heating and air conditioning apparatus*, from Greenvale, NY, to points in WA, OR, CA, NV, AZ, UT, ID, MT, WY, CO, NM, ND, SD, NE, KS, OK, TX, MN, WI, MI, IL, IA, IN, and OH, under continuing contract(s) with Slant/Fin Corporation, of Greenvale, NY. (Hearing site: New York, NY.)

MC 145425 (Sub-2F), filed June 1, 1979. Applicant: FREE SPIRIT TRUCKING, INCORPORATED, 824 O'Neal Lane, Henderson, TN 38340. Representative: R. Connor Wiggins, Jr., 100 North Main Building, Suite 909, Memphis, TN 38103. Transporting *scrap metals*, in dump vehicles, (1), from the facilities of H. O. Forgy & Son, Inc., at Jackson, TN, to Birmingham, Bessemer, Anniston, and Sheffield, AL, and (2) from Sheffield, Russellville, Anniston, and Birmingham, AL, to the facilities of H. O. Forgy & Son, Inc., at Jackson, TN. (Hearing site: Memphis, TN.)

MC 145470 (Sub-1F), filed May 21, 1979. Applicant: ALL FREIGHT SYSTEMS, INC., 1026 South 10th Street, Kansas City, KS 66105. Representative: Donald J. Quinn, Suite 900, 1012 Baltimore, Kansas City, MO 64105. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *paper forms, printed, and printed pads and materials, equipment and supplies used in the production and sale of printed checks, deposit tickets and forms*, between the facilities of Deluxe Check Printers, Inc., at points in CA, CO, IL, IA, KS, LA, MN, MS, MO, MT, NM, OK, OR, TN, TX, WA, and WI, under continuing contract(s) with Deluxe Check Printers, Inc., of St. Paul, MN. (Hearing site: Kansas City, MO, or St. Paul, MN.)

MC 145731 (Sub-1F), filed May 23, 1979. Applicant: JOHN ERNEST COURT, d.b.a. COURT TRUCKING, P.O. Box 697, Warton, Ontario, Canada, NOH 2T0. Representative: William J. Hirsch, Suite 1125, 43 Court Street, Buffalo, NY 14202. Transporting *cut and broken stone*, between ports of entry on the international boundary line between the United States and Canada, in MI and NY, on the one hand, and, on the

other, points in GA, IN, KY, MI, NY, OH, PA, TN, and VT. (Hearing site: Buffalo, NY.)

MC 145930 (Sub-3F), filed May 30, 1979. Applicant: WILLIAM E. MOROG, d.b.a. JONICK & CO., 2815 E. Liberty Ave., Vermilion, OH 44089. Representative: Michael M. Briley, 300 Madison Avenue, 12th Fl., Toledo, OH 43603. Transporting *lime, limestone, and limestone products*, in bulk, from Sandusky County, Carey, Delaware, Huron, Maple Grove, and Spore, OH, to points in IL, IN, KY, MI, NY, PA, and WV. (Hearing site: Toledo, OH, or Washington, DC.)

Note.—Dual operations may be involved.

MC 146021 (Sub-4F), filed May 23, 1979. Applicant: RALPH OWENS TRUCKING CO., INC., 311 Park Avenue, P.O. Box 711, Hereford, TX 79045. Representative: Richard Hubbert, P.O. Box 10236, Lubbock, TX 79408.

Transporting *non-alcoholic phosphated or carbonated beverages*, from the facilities of Shasta Beverage Co., at Houston, TX, to Shreveport, Alexandria, Monroe, Lake Charles, Baton Rouge, Church Point, Lafayette, New Orleans, Natchitoches, and Kenner, LA. (Hearing Site: Houston or Dallas, TX.)

MC 146081 (Sub-4F), filed May 29, 1979. Applicant: SERVICE EQUIPMENT & TRUCKING, INC., Box 162, East Rt. 316, Mattoon, IL 61932. Representative: Robert T. Lawley, 300 Reisch Bldg., Springfield, IL 62701. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting *plastic bottles and can carriers*, in rolls, or reels, in packages, from Charleston, IL, to points in IN, KY, OH, and TN, under continuing contract(s) with Hi-Cone, a Div. of Illinois Tool Works, of Charleston, IL. (Hearing site: St. Louis, MO, or Chicago, IL.)

MC 146380 (Sub-2F), filed May 30, 1979. Applicant: PIERCE TRUCKING, 205 First St., Ludington, MI 49431. Representative: Karl L. Gotting, 1200 Bank of Lansing Bldg., Lansing, MI 48933. Transporting (1) *chemicals*, and (2) *materials and supplies* used in the manufacture of chemicals, between Ludington, MI, on the one hand, and, on the other, points in WI, IA, MO, IL, IN, OH, WV, KY, PA, and MI. (Hearing site: Lansing or Grand Rapids, MI.)

MC 146800 (Sub-2F), filed May 30, 1979. Applicant: VERMILLION BROTHERS, INC., R.R. 2, Box 33, Keokuk, IA 52362. Representative: George Vermillion, Jr. (same address as applicant). Transporting *meats, meat products and meat byproducts, and articles distributed by meat-packing*

*houses*, as described in sections A and C of Appendix I to the report in *Descriptions in Motor Carrier Certificates*, 61 M.C.C. 209 and 766, (except hides and commodities in bulk), from Chicago, IL, to points in CA. (Hearing site: Des Moines, IA, or Chicago, IL.)

MC 147251 (Sub-1F), filed May 30, 1979. Applicant: FRISKNEY & HARDING, INC., 329 State St., Kendallville, IN 46755. Representative: Donald W. Smith, P.O. Box 40248, Indianapolis, IN 46240. Transporting *polyurethane foam*, from the facilities of Reeves Bros., Inc., Curon Division, at Auburn, IN, to Detroit, Marshall, and Grand Rapids, MI, Toledo, Middletown, Medina, Cleveland, Akron, and Mansfield, OH, and Chicago, IL. (Hearing site: Indianapolis, IN, or Chicago, IL.)

Note.—Dual operations may be involved.

MC 147291 (Sub-1F), filed May 25, 1979. Applicant: OCCO TRANSPORT, INC., Industrial Park Blvd., Cokato, MN 55321. Representative: Robert P. Sack, P.O. Box 6010, West St. Paul, MN 55118. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1) *hoisting, lifting, towing and material tie-down systems or assemblies*; (2) *parts, materials, supplies, and equipment* used in the manufacture and distribution of the commodities named in (1) above, (except commodities in bulk); and (3) *contractors tools, equipment, and supplies, new* (except commodities in bulk), between Beulah, ND, and Cokato and Minneapolis, MN, on the one hand, and, on the other, points in the United States (except AK and HI), under continuing contract(s) with Olsen Chain and Cable Company, Inc., of Minneapolis, MN. (Hearing site: St. Paul, MN.)

MC 147890F, filed May 17, 1979. Applicant: C. J. KINCAID d.b.a. RECYCLABLE TRANSPORTATION, a corporation, P.O. Box 31, Conley, GA 30027. Representative: K. Edward Wolcott, Suite 1200, 235 Peachtree St., N.E., Atlanta, GA 30303. Transporting *scrap metal*, from points in FL to points in AL, GA, MS, SC, and TN.

MC 147891F, filed May 24, 1979. Applicant: W. E. FERGUSON, d.b.a. FERGUSON TRUCKING, 720 Brownell, Joplin, MO 64801. Representative: B. W. LaTourette, Jr., 11 South Meramec, Suite 1400, St. Louis, MO 63105. To operate as a *contract carrier*, by motor vehicle, in interstate or foreign commerce, over irregular routes, transporting (1) *containers, container ends, and sheet*

*steel*; and (2) *parts and accessories* for the commodities named in (1) above, between Fenton, MO, on the one hand, and, on the other, Ft. Smith, Jacksonville, West Helena, and West Memphis, AR, Atlanta, GA, Jacksonville, Mapleton, Marion, Robinson, and Tuscola, IL, Indianapolis, and Terre Haute, IN, Des Moines and Sioux City, IA, Coffeyville, Kansas City, and Wichita, KS, Calver City, Carrolton, Elizabethtown, Henderson, Louisville, and Murray, KY, Ponca City, and Tulsa, OK, and Charleston, Chattanooga, Collierville, Kingsport, Memphis, and Mount Pleasant, TN, under continuing contract(s) with USS Products, Division of United States Steel Corporation, of Pittsburgh, PA. (Hearing site: St. Louis, MO, or Washington, DC.)

MC 147331 (Sub-1F), filed May 14, 1979. Applicant: CARMICHAEL TOURS, INC., 117-07 New York Blvd. Jamaica, NY 11434. Representative: Harold Sacks, 19 West 44th St., New York, NY 10036. Transporting *passengers and their baggage* in the same vehicle with passengers, in charter operations, beginning and ending at New York, NY, and extending to points in ME, MA, CT, VT, RI, NY, NJ, NH, PA, DE, MD, VA, NC, SC, GA, and FL. (Hearing site: New York, NY, or Washington, DC.)

#### Volume No. 223

Decided: Oct. 5, 1979

By the Commission, Review Board Number 3, Members Parker, Fortier and Hill.

MC 96697 (Sub-10F), filed March 8, 1979. Applicant: CITY FREIGHT LINES, 22560 Lucerne Ave., Carson, CA 90745. Representative: R. Y. Schureman, 1545 Wilshire Blvd., Los Angeles, CA 90017. Transporting *general commodities* (except those of unusual value, classes A and B explosives, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment), (1) between points within the San Francisco Territory, as described in Note A; (2) between points within the Southern California Territory, as described in Note B; (3) between points in the San Francisco Territory Note A and points in the Southern California Territory Note B, serving all intermediate points on U.S. Hwy 101 and CA Hwy 1. NOTE: San Francisco Territory: All points in the Counties of Alameda, Contra Costa, Santa Clara and San Francisco, CA. Note B: Southern California Territory: The Southern California Territory includes that area embraced by the following boundary: Beginning at a point west of the intersection of CA Hwy 1 with the northern boundary line of San Luis Obispo County at the Pacific Ocean;

easterly along said boundary line to its intersection with the northwestern boundary line of Kern County; easterly along said boundary line to its intersection with the northwestern boundary line of San Bernardino County; southerly along the Kern-Bernardino boundary line to its intersection with U.S. Hwy 395; southerly along U.S. Hwy 395 to its junction with CA Hwy 58; easterly along CA Hwy 58 to its junction with I-15 near Barstow; easterly on I-15 to Yermo; southerly along unnumbered county road from Yermo to its junction with I-40 at Daggett; westerly on I-40 to its junction with CA Hwy 247; easterly and southerly on CA Hwy 247 to its junction with CA Hwy 62 at or near Yucca Valley; easterly on CA Hwy 62 to its junction with an unnumbered county road at or near Twentynine Palms; southwesterly and southeasterly along said unnumbered county road, through Joshua Tree National Monument, to its junction with CA Hwy 111 at or near Mecca; southerly along CA Hwy 111 to its junction with CA Hwy 115 at or near Calipatria; southerly along CA Hwy 115 to its junction with I-8 at or near Holtville; easterly along I-8 to its junction with CA Hwy 98; south along an imaginary line to its junction with the international boundary line between the United States and the Republic of Mexico; west along the international boundary line between the United States and the Republic of Mexico to the Pacific Ocean; northerly along the shoreline of the Pacific Ocean to points of beginning, including the commercial zone, of any point traversed by the boundaries of said Territory. (Hearing site: Los Angeles, CA.)

**Note.**—The purpose of this application is to convert existing Certificate of Registration issued to applicant in MC 96697 Sub 8, together with certain extensions in the territories to be served.

Agatha L. Mergenovich,

Secretary.

[FR Doc. 79-36709 Filed 11-29-79; 8:45 am]

BILLING CODE 7035-01-M

# Sunshine Act Meetings

Federal Register

Vol. 44, No. 231

Thursday, November 29, 1979

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

## CONTENTS

	Item
Civil Aeronautics Board.....	1
Federal Deposit Insurance Corporation.....	2, 3
Legal Services Corporation.....	4
Interstate Commerce Commission.....	5
United States Railway Association.....	6

1

[M-257, Amdt. 1; Nov. 26, 1979]

### CIVIL AERONAUTICS BOARD.

Notice of addition of items to the November 28, 1979, meeting agenda.

**TIME AND DATE:** 9:30 a.m., November 28, 1979.

**PLACE:** Room 1027 (Open), Room 1011 (Closed), 1825 Connecticut Avenue, N.W., Washington, D.C. 20428.

#### SUBJECT:

6a. Dockets 36782 and 37062; Hughes Airwest's petition for review of staff action taken in Order 79-10-125, an award of Boise-Eugene authority to Frontier Airlines under 401(d)(5)(A); application of Frontier Airlines for an exemption under 416(b) to provide nonstop Boise-Eugene service. (BDA)

10a. Dockets 36594 and 36651; Aspen Airways' notice to suspend service at Gunnison, CO. (BDA)

**STATUS:** Open (Items 1-23), Closed (Item 24).

**PERSON TO CONTACT:** Phyllis T. Kaylor, the Secretary, (202) 673-5068.

**SUPPLEMENTARY INFORMATION:** Frontier Airlines plans to begin service in the market at issue on December 1, 1979. Therefore, the Board should consider Hughes Airwest's petition for review of the order granting this authority as soon as possible. Due to processing delays in the Bureau of Domestic Aviation, Item 6a was not submitted before the deadline for the November 28, 1979 agenda. The staff has just completed their analysis and request that the Board consider Item 10a so that all parties concerned can be given a time allowance before the suspension of service. The date of suspension is December 6, 1979. Accordingly, the following Members have voted that Items 6a and 10a be added to the

November 28, 1979 agenda and that no earlier announcement of these additions was possible:

Chairman, Marvin S. Cohen  
Member, Richard J. O'Melia  
Member, Elizabeth E. Bailey  
Member, Gloria Schaffer

[S-2311-79 Filed 11-27-79; 3:34 pm]

BILLING CODE 6320-01-M

2

### FEDERAL DEPOSIT INSURANCE CORPORATION.

#### Notice of Agency Meeting.

Pursuant to the provisions of the "Government in the Sunshine Act" (5 U.S.C. 552b), notice is hereby given that the Federal Deposit Insurance Corporation's Board of Directors will meet in open session at 2 p.m. on Monday, December 3, 1979, to consider the following matters:

Disposition of minutes of previous meetings.

Recommendations with respect to payment for legal services rendered and expenses incurred in connection with receivership and liquidation activities:

Bronson, Bronson & McKinnon, San Francisco, California, in connection with the receivership of United States National Bank, San Diego, California.

Morgan, Lewis & Bockius, Philadelphia, Pennsylvania, in connection with the liquidation of assets acquired by the corporation from Farmers Bank of the State of Delaware, Dover, Delaware.

Powell, Goldstein, Frazer & Murphy, Atlanta, Georgia, in connection with the liquidation of The Hamilton Bank and Trust Company, Atlanta, Georgia.

Sidley & Austin, Chicago, Illinois, in connection with the liquidation of The Drovers' National Bank of Chicago, Chicago, Illinois.

Kantrow, Spaht, Weaver & Walter, Baton Rouge, Louisiana, in connection with the liquidation of Republic National Bank of Louisiana, New Orleans, Louisiana.

Memorandum re: Changes in FDIC Regulations to amend delegations of authority, to amend the definition of "phantom" bank merger, and to correct an error in a prior publication.

Memorandum re: Supervisory Policy regarding the purchase and sale of U.S. Government guaranteed loans by financial institutions.

#### Reports of committees and officers:

Report of the Executive Secretary regarding his transmittal of "no significant effect" competitive factor reports.

Minutes of the actions approved by the Committee on Liquidations, Loans and Purchases of Assets pursuant to authority delegated by the Board of Directors.

Reports of the Director of the Division of Bank Supervision with respect to applications or requests approved by him and the various Regional Directors pursuant to authority delegated by the Board of Directors.

The meeting will be held in the Board Room on the sixth floor of the FDIC Building located 550-17th Street, NW., Washington, D.C.

Requests for information concerning the meeting may be directed to Mr. Hoyle L. Robinson, Executive Secretary of the Corporation, at (202) 398-44-5.

Dated: November 26, 1979.

Federal Deposit Insurance Corporation.

Hoyle L. Robinson,

Executive Secretary.

[S-2307-79 Filed 11-27-79; 11:44 am]

BILLING CODE 6714-01-M

3

### FEDERAL DEPOSIT INSURANCE CORPORATION.

#### Notice of Agency Meeting.

Pursuant to the provisions of the "Government in the Sunshine Act" (5 U.S.C. 552b), notice is hereby given that at 2:30 p.m. on Monday, December 3, 1979, the Federal Deposit Insurance Corporation's Board of Directors will meet in closed session, by vote of the Board of Directors pursuant to sections 552b(c)(2), (c)(6), (c)(8), (c)(9)(A)(ii), and (c)(9)(B) of title, 5, United States Code, to consider the following matters:

Applications for Federal deposit insurance:

First Missouri Bank of Ellisville, a proposed new bank, to be located at 1353 Manchester Road, Ellisville, Missouri, for Federal deposit insurance.

Farmers Branch Bank, a proposed new bank, to be located at 2350 Valley View Lane, Farmers Branch, Texas, for Federal deposit insurance.

Request for exemption pursuant to section 348.4(b)(2) of the Corporation's rules and regulations entitled "Management Official Interlocks":

Farmers Branch Bank, Farmers Branch, Texas.

Recommendations regarding the liquidation of a bank's assets acquired by the Corporation in its capacity as receiver, liquidator, or liquidating agent of those assets:

Case No. 44,130-L—Franklin National Bank, New York, New York.

Case No. 44,143-L—Banco Credito y Ahorro Ponceno, Ponce, Puerto Rico.

Case No. 44,146—Farmers Bank of the State of Delaware, Dover, Delaware.

Recommendation with respect to payment for expenses incurred by Casey, Lane and Mittendorf, New York, New York, in connection with the liquidation of Franklin National Bank, New York, New York.

Recommendations with respect to the initiation or termination of cease-and-desist proceedings, termination-of-insurance proceedings, or suspension or removal proceedings against certain insured banks or officers or directors thereof:

Names of persons and names and locations of banks authorized to be exempt from disclosure pursuant to the provisions of subsections (c)(6), (c)(8), and (c)(9)(A)(ii) of the "Government in the Sunshine Act" (5 U.S.C. 552b(c)(6), (c)(8), and (c)(9)(A)(ii)).

Personnel actions regarding appointments, promotions, administrative pay increases, reassignments, retirements, separations, removals, etc.:

Names of employees authorized to be exempt from disclosure pursuant to the provisions of subsections (c)(2) and (c)(6) of the "Government in the Sunshine Act" (5 U.S.C. 552b(c)(2) and (c)(6)).

The meeting will be held in the Board Room on the sixth floor of the FDIC Building located at 550—17th Street, N.W., Washington, D.C.

Requests for information concerning the meeting may be directed to Mr. Hoyle L. Robinson, Executive Secretary of the Corporation at (202) 389-4425.

Dated: November 26, 1979.

Federal Deposit Insurance Corporation.  
Hoyle L. Robinson,  
Executive Secretary.

[S-2306-79 Filed 11-27-79; 11:44 am]

BILLING CODE 6714-01-M

4

#### LEGAL SERVICES CORPORATION.

##### BOARD OF DIRECTORS MEETING.

**TIME AND DATE:** 9 a.m.—5 p.m.—Thursday and Friday, December 6–7, 1979.

**PLACE:** Hyatt Regency Hotel, Embarcadero Room A, Five Embarcadero Center, San Francisco, California.

**STATUS:** Open Meeting.

##### MATTERS TO BE CONSIDERED:

1. Adoption of Agenda.
2. Approval of Minutes of September 7, 1979 Meeting
3. Remarks by Leonard Janifsky, President of the American Bar Association.

4. Reports from Committee on Appropriations and Audit—

• Final Report on Fiscal Year 1979 Expenditures

• Report on Audit of Legal Services Corporation for Fiscal Year 1979.

• Review of Fiscal Year 1981 Budget Request.

• Allocation of One Time Funds During Fiscal Year 1980.

5. Report from Committee on Provision of Legal Services

• Resolution concerning Native American Legal Services

6. Overview of the Activities of the National Support Centers

7. Authorization of Board Committees.

8. President's Report

9. Future Meeting Dates

10. Other Businesses

##### CONTACT PERSON FOR MORE

**INFORMATION:** Dellanor Young, Office of the President, telephone (202) 272-4040.

Issued: November 26, 1979.

Dan J. Bradley,

President.

[S-2306-79 Filed 11-26-79; 5:08 pm]

BILLING CODE 6820-35-M

5

#### INTERSTATE COMMERCE COMMISSION.

**TIME AND DATE:** 9:30 a.m., Tuesday, December 4, 1979.

**PLACE:** Hearing Room "A", Interstate Commerce Commission Building, 12th Street and Constitution Avenue, NW., Washington, D.C. 20423.

**STATUS:** Open Special Conference.

**MATTER TO BE DISCUSSED:** Rail Rate Bureaus.

##### CONTACT PERSON FOR MORE

**INFORMATION:** Douglas Baldwin, Director, Office of Communications, Telephone: (202) 275-7252.

The Commission's professional staff will be available to brief news media representatives on conference issues at the conclusion of the meeting.

[S-2309-79 Filed 11-27-79; 1:06 pm]

BILLING CODE 7035-01-M

6

#### UNITED STATES RAILWAY ASSOCIATION.

**TIME AND DATE:** 9 a.m., December 6, 1979.

**PLACE:** 955 L'Enfant Plaza North, SW., Board Room, Room 2-500, Fifth Floor, Washington, D.C.

**STATUS:** Parts of this meeting will be open to the public. The rest of the meeting will be closed to the public.

**MATTERS TO BE CONSIDERED BY THE BOARD OF DIRECTORS:**

##### Portions Closed to the Public (9 a.m.)

1. Consideration of internal personnel matters.

2. Review of Conrail proprietary and financial information for monitoring and investment purposes.

3. Review of Delaware and Hudson Railway Company proprietary and financial information for monitoring and investment purposes.

4. Litigation report.

##### Portions Open to the Public (1 p.m.)

5. Approval of minutes of the November 1, 1979 Board of Directors meeting.

6. Legislative report.

7. Consideration of Delaware and Hudson requests.

8. Report on Conrail monitoring.

9. Consideration of Conrail First Quarter Investment Commitment request.

10. Consideration of Conrail Drawdown request for December.

11. Consideration of representation budget.

12. Contract Actions (extensions and approvals).

[S-2310-79 Filed 11-27-79; 3:18 pm]

BILLING CODE 8240-01-M

**Federal Register**

---

Thursday  
November 29, 1979

---

**Part II**

**Department of  
Health, Education,  
and Welfare**

---

Office of Human Development Services

---

Vocational Rehabilitation and  
Independent Living Rehabilitation  
Programs; Proposed Rulemaking

**DEPARTMENT OF HEALTH,  
EDUCATION, AND WELFARE**

**Office of Human Development  
Services**

45 CFR Parts 1361, 1362, and 1363

**Vocational Rehabilitation and  
Independent Living Rehabilitation  
Programs; Proposed Rulemaking**

**AGENCY:** Department of Health,  
Education, and Welfare, Office of  
Human Development Services,  
Rehabilitation Services Administration.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Rehabilitation Services Administration is proposing regulations to implement the new vocational rehabilitation and independent living rehabilitation authorities contained in the Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 (Pub. L. 95-602). These include revisions to the existing State plans under which State vocational rehabilitation agencies provide vocational rehabilitation services to handicapped individuals and the development of new State plans for providing independent living rehabilitation services to severely handicapped individuals in order to assist them to achieve a greater level of control over the daily management of their lives.

In addition, the regulations cover a number of new special purpose grants and other assistance programs authorized by the 1978 Amendments under which public and other nonprofit agencies and organizations may apply directly to the Commissioner of the Rehabilitation Services Administration for financial assistance.

The proposed regulations also revise certain existing regulations which were published to implement the Rehabilitation Act of 1973 (Pub. L. 93-112), as amended by the Rehabilitation Act Amendments of 1974 (Pub. L. 93-516). These regulations are being revised in order to make them easier for the public to use and understand.

**DATE:** Written comments and suggestions will be considered if received no later than February 27, 1980.

**ADDRESS:** Written comments and suggestions on the proposed regulations should be sent to the Commissioner, Rehabilitation Services Administration, Department of Health, Education, and Welfare, Washington, D.C. 20201.

**FOR FURTHER INFORMATION CONTACT:**  
Harold F. Shay, Director, Division of  
Manpower Development, Rehabilitation

Services Administration, Room 3321,  
Mary E. Switzer Building, 330 C Street,  
S.W., Washington, D.C. 20201. (Area  
Code (202) 245-0079) or TTY: ((202) 245-  
0591).

**SUPPLEMENTARY INFORMATION:** The Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 significantly extended the scope of public and voluntary agency programming in providing rehabilitation services to handicapped individuals. These changes expanded the ongoing vocational rehabilitation service programs in each State, extended the range of special categories of project support and other assistance available directly from the Federal Government, and established State independent living service programs for severely handicapped individuals.

Insofar as State vocational rehabilitation reprogramming is concerned, the 1978 Amendments revised the State vocational rehabilitation service plan requirements to include provisions:

—To expand and improve the use of rehabilitation facilities in the delivery of vocational rehabilitation services;

—To ensure the availability of vocational rehabilitation personnel able to communicate in clients' native languages or able to communicate to clients who rely on special modes of communication;

—To ensure coordination with State special education agencies in the delivery of vocational rehabilitation services;

—To provide newly specified vocational rehabilitation services; including telecommunications systems, recorded material for blind individuals, and captioned materials for deaf individuals; and

—To establish information and referral programs within each State vocational rehabilitation program.

Other revisions to the State vocational rehabilitation service programs under the 1978 Amendments were:

—The identification of the "designated State unit" as the administering organizational unit responsible for directly carrying out the State vocational rehabilitation service program under the Rehabilitation Act;

—The conversion of the State plan for vocational rehabilitation services from an annual plan to a three-year plan;

—The establishment of a mechanism for selecting a substitute agency to carry out the vocational rehabilitation service program in a State when necessary because funds have been withheld;

—The revision of procedures affecting individualized written rehabilitation

programs to require both that the director of the designated State unit review any decision with which a client is dissatisfied and that the Secretary of the Department of Health, Education, and Welfare make recommendations to the State unit director about the disposition of any case still unresolved after the director's review.

The 1978 Amendments also authorized a number of new and expanded Federal grant programs and related assistance. These included:

—A new grant program under Section 130 of the Act to enable American Indian tribes to provide vocational rehabilitation services to handicapped American Indians residing on Federal and State reservations;

—A new program under Section 303 of the Act to guarantee loans made for the construction of rehabilitation facilities;

—A new grant program under Section 304 of the Act for training interpreters for deaf persons through the Office of Information and Resources for the Handicapped;

—A new grant program under Section 305 of the Act for establishing and operating comprehensive rehabilitation centers which provide direct rehabilitation services and serve as information and referral resources for handicapped individuals and for other community agencies which serve handicapped individuals;

—A new grant program under Section 314 of the Act for providing reading services for blind individuals and for expanding and improving existing reading service resources;

—A new grant program under Section 315 of the Act for States to establish and maintain interpreter service programs for deaf individuals;

—A new grant program under Section 316 of the Act for initiating special recreation programs for handicapped individuals; and

—A new program of grants and contracts under Section 622 of the Act available directly to handicapped individuals who wish to establish or operate commercial or other enterprises.

Revisions to existing grant authorities included:

—Adding a focus on ensuring assistance necessary for protecting the rights of handicapped individuals under the Client Assistance Program under Section 112 of the Act and removing the ceiling on the number of projects which may be funded;

—Removing the limits on Staffing Grants under Section 301 of the Act to meeting only the "initial" staff requirements of the rehabilitation facilities being assisted;

—Identifying the fields of rehabilitation psychiatry and rehabilitation job placement for funding within the scope of the rehabilitation long-term training grant program under Section 304 of the Act;

—Extending services under the revised Special Projects and Demonstrations authority under Section 311 of the Act to handicapped persons irrespective of age or vocational potential, and providing for the construction of facilities;

—Authorizing the Helen Keller National Center for Deaf-Blind Youths and Adults under Section 313 of the Act to seek reimbursement for certain costs of services; and

—Adding an emphasis within the Projects with Industry Program under Section 621 of the Act on special supportive services, work facilities and equipment adaptation, and the distribution of special aids, appliances, or special equipment to handicapped individuals.

Finally, the 1978 Amendments added an extensive new State-Federal formula grant program providing independent living rehabilitation services to severely handicapped individuals. In addition to the new State-Federal independent living service program, the 1978 Amendments added new discretionary grant programs related to independent living including:

—A program under Section 711 of the Act for establishing and operating independent living centers which provide a broad range of independent living skills and related assistance to severely handicapped persons;

—A program under Section 721 of the Act for providing special independent living rehabilitation services to older blind individuals; and

—A program under Section 731 of the Act for assisting States to establish protection and advocacy systems for severely handicapped individuals who are receiving independent living services.

The regulations, as revised, are divided into three parts:

—Part 1361 covering the State plans for vocational rehabilitation services;

—Part 1362 covering discretionary grants, and other forms of assistance available to further rehabilitation efforts on behalf of physically and mentally handicapped persons; and

—Part 1363 covering the State plans for independent living services.

More specifically, Part 1361 continues to contain all requirements under the State plans for vocational rehabilitation services. This is the basic vocational rehabilitation service program under which State vocational rehabilitation

agencies have been providing direct services to handicapped individuals over the years in order to help them to secure and maintain suitable employment. Part 1361 includes all administrative and programmatic requirements placed on State vocational rehabilitation program agencies in their administration of State vocational rehabilitation services.

Also covered in Part 1361 is the special program of innovation and expansion project grants which are administered by State agencies under the State vocational rehabilitation service plans. Finally, Part 1361 includes procedures for conducting hearings on conformity issues involving the disapproval of a State plan and on noncompliance issues in the administration of an approved plan.

Part 1362, as revised, includes all grant programs and other special forms of direct Federal assistance for which the Commissioner of the Rehabilitation Services Administration is responsible.

Subpart A of Part 1362 includes a number of general requirements which apply under all categories of assistance available under Part 1362. Subpart B covers grants for projects to provide vocational rehabilitation services to different groups of physically and mentally disabled individuals. Subpart C covers different types of assistance available to rehabilitation facilities. Subpart E covers the different types of grants available for training rehabilitation personnel. Subpart F covers the Helen Keller National Center for Deaf-Blind Youths and Adults. Subpart H contains a new group of project categories providing different types of assistance extending beyond traditional vocational rehabilitation service needs.

As proposed, Part 1362 does not include the regulations for the rehabilitation research program which had previously been included under Subpart D of Part 1362. The 1978 Amendments transferred authority for the administration of the rehabilitation research program to the newly established National Institute of Handicapped Research and that office is expected to publish regulations for the rehabilitation research program in the near future.

Part 1363 is a new set of regulations which establishes requirements for the State plans for independent living rehabilitation services. Under this new program, State vocational rehabilitation organizational units will be providing independent living services to individuals who generally are considered to be too severely handicapped to be eligible for

vocational rehabilitation services without a more general type of preliminary assistance.

Unless otherwise indicated below, the proposed regulations reflect changes specifically required by the 1978 Amendments to the Rehabilitation Act. In the case of the requirements for the new State plans for independent living rehabilitation services, the proposed regulations also reflect an effort to provide appropriate consistency with the requirements for the State plans for vocational rehabilitation services.

#### Part 1361

Within Part 1361, the following specific significant regulatory changes are proposed:

#### Subpart A

§ 1361.1 *Terms.* The number of terms defined in this section has been reduced to remove those terms defined in the Act which are used relatively infrequently in the regulations. Certain other definitions have been relocated within the regulation in order to relate them more closely to the content area being discussed. In addition, certain new definitions have been added to reflect changes made by the 1978 Amendments.

More specifically within this section, the terms "designated State unit" and "State unit" have been added to refer to that organizational unit within the sole State agency for vocational rehabilitation which is directly responsible for the delivery of vocational rehabilitation services to handicapped individuals.

Throughout Part 1361, the terms "designated State unit" and "State unit" have been introduced to distinguish the different levels of responsibility. The term "State agency" is used within the regulations to refer to the highest level vocational rehabilitation administrative organization in the State which is responsible for supervisory and fiscal controls over the State's vocational rehabilitation program. The term "State unit" is used to indicate that unit which directly carries out the State's vocational rehabilitation program and provides services to handicapped individuals within the State.

In some States, the State unit and the State agency may be the same organizational entity. In other States, however, the State unit is located within the State agency. When the term "State agency" is used in the regulations, therefore, it can be understood as appropriate to apply to both the "State agency" and the "State unit."

The definition of "establishment of a rehabilitation facility" has been revised to reflect the fact that assistance under

this authority is no longer limited to "initial staffing" or "initial equipment." Both initial and additional staffing and equipment assistance may now be provided.

The definition of "physical and mental restoration services" has been revised to add "therapeutic recreation services." This revision is in line with the overall concern throughout the 1978 Amendments for the importance of recreation activities and services for handicapped persons.

The definition of "physical or mental disability" has been revised to clarify the relationship in the existing definition between an individual's disability and his or her vocational functioning. All clients of State vocational rehabilitation programs are required to have medically recognizable disabilities and to require services in order to enable them to secure employment. Any service provided under the State vocational rehabilitation program must be directly related to assisting the individual to overcome the barriers to employment imposed by the physical or mental disability.

A definition for "reservation" has been added to assist in identifying State unit responsibilities for providing services to handicapped American Indians in those States where special tribal vocational rehabilitation service projects may be operating.

The definition of "State" has been revised to include the Northern Mariana Islands.

The definition of "vocational rehabilitation services" has been revised to include newly specified services relating to the use of existing telecommunications systems and the use of special materials for blind and deaf individuals.

The definition of "severely handicapped individual" has not been revised. Although considerable effort has been undertaken to refine the definition previously adopted, it does not appear that there has as yet been sufficient experience to propose revisions to this definition.

#### Subpart B

§ 1361.2 *The State plan: General requirements.* This section has been revised to provide for a three-year State plan instead of the annual State plan previously in effect. This revised section also includes a requirement for the submittal of financial and program information which had previously been required in a separate "Program and Financial Plan."

§ 1361.4 *State plan approval and disapproval.* This section has been revised to change the State plan

submittal date to July 1 because of the change in the Federal fiscal year.

§ 1361.7 *Organization of the State agency.* This section has been revised to identify the organizational requirements affecting the location of the "designated State unit" within a sole State agency. Since the 1978 Amendments clarified the role, function, and responsibilities of the State unit, certain non-regulatory descriptive material previously found in this section has been omitted. This material had described the factors to be considered by the Commissioner in evaluating the comparability of the organizational level and status of the vocational rehabilitation unit within the State agency. It is expected that the new statutory base for the State unit will resolve much of the confusion about areas of functional responsibility which have arisen in recent years as a result of State agency reorganization.

§ 1361.14 *Cooperative programs involving funds from other public agencies.* This section has been revised to include a new administrative requirement for an annual review by the State unit of each cooperative program in order to assure compliance with the terms of written agreements between the State unit and other public agencies. Special attention in these annual reviews will be given to the use of certified funds which have been identified by the U.S. General Accounting Office and the Audit Agency of the Department of Health, Education, and Welfare as an area in which there is evidence of some improper practice in the past.

§ 1361.15 *Staffing of the State's vocational rehabilitation program.* This section has been revised to include a new requirement that a State unit make necessary arrangements to ensure the availability of staff able to communicate in the native languages of minority groups which constitute substantial segments of the State's population. This section has also been revised to require that the State unit staff include personnel able to communicate with handicapped clients such as deaf, blind, and deaf-blind individuals who rely on special methods of communication. It is not expected that all personnel under this section will be full-time employees of the State unit although this would be likely in the case of rehabilitation counselors skilled in manual communication. The services of these personnel may be secured by the State unit under special contractual, volunteer, or other arrangements and on an as needed basis. It would be highly desirable in the case of clients from a minority group numerous in the State if

the State unit staff person was not only fluent in the native language but was also familiar with the culture of the minority group with special reference to cultural attitudes toward disability.

§ 1361.16 *Standards of personnel administration.* This section has been revised to reflect the fact that Section 602(a) of the Civil Service Reform Act (Pub. L. 95-454) amended Section 208 of the Intergovernmental Personnel Act to abolish all statutory personnel requirements established as a condition for the receipt of grants-in-aid by State and local governments. This amendment does not apply, however, to those programs which are required by statute to adhere to the Federal merit system standards of personnel administration. Since Section 101(a)(7)(A) of the Rehabilitation Act requires personnel standards to be established but does not require adherence to the Federal merit system standards, the amendment provided the Commissioner with an opportunity either to remove all personnel standard requirements in vocational rehabilitation or to apply the Federal merit system standards throughout the State-Federal vocational rehabilitation system. In line with the intent of the amendment to avoid inconsistent and conflicting approaches to State and local government personnel administration and to encourage uniform use of the Federal merit system standards, the Commissioner has chosen to propose that the Federal merit system standards be required under the State Plans for vocational rehabilitation services.

§ 1361.20 *Cooperation with other public agencies.* This section has been revised to require that State vocational rehabilitation programs make specific arrangements for coordination with special education and vocational education agencies to provide services to any handicapped persons who might be eligible for assistance under an education program as well as under the vocational rehabilitation program and whose rehabilitation could be expected to be enhanced by a coordinated joint effort.

§ 1361.21 *Establishment and maintenance of information and referral resources.* This section has been added to cover the new State Plan requirement concerning information and referral systems. It is expected that the State unit will utilize available resources to the greatest extent to ensure that information services and referral assistance are available to all handicapped persons in the State interested in vocational rehabilitation and related social and medical service

programs. The primary purpose of the State vocational rehabilitation program effort in this area will be to provide accurate information about service resources to its own clients, and to applicants for vocational rehabilitation services, and when necessary to make appropriate referral to other service providers.

This information and referral resource is expected to utilize available media to assist in keeping in touch with handicapped persons in the State. Special use can be expected to be made of newspapers, journals, and other publications which are directed to readership of handicapped persons.

**§ 1361.22 State plan for rehabilitation facilities.** This section has been added to require the State unit to maintain an inventory of rehabilitation facilities and rehabilitation facility service needs in order to assist in meeting the overall mandate of the 1978 Amendments for an expanded and a more effective use of rehabilitation facilities. The State rehabilitation facilities plan will not be submitted as part of the State plan for vocational rehabilitation services but will be maintained separately by the State unit as a basis for planning and developing effective rehabilitation facility services. In addition to maintaining a list of facilities and a prioritized determination of facility needs, a State unit might also wish to include such data as the type of available services, the number of people served by each facility, and the extent to which facilities in the State are accredited.

**§ 1361.23 Utilization of rehabilitation facilities.** This section has been added to cover the new State plan requirement affecting the establishment of specific policies to ensure appropriate State unit use of rehabilitation facilities. It is expected that the development of these policies will be related to each State's rehabilitation facilities plan and will lead to the preparation of specific operating guidelines governing referral to facilities by State unit counselors.

**§ 1361.25 General administrative and fiscal requirements.** This is a new section applying certain current HEW regulations to State grants for vocational rehabilitation services. Insofar as the HEW regulations implementing OMB Circular A-102 are concerned, the use of in-kind matching is specifically prohibited. It is expected that additional HEW regulations will be issued in the future which will also apply to the State vocational rehabilitation program.

**§ 1361.31 Eligibility for vocational rehabilitation services.** This section has been revised to provide for an opportunity for an interim determination

of eligibility by State units in the case of applicants who have records of physical or mental disability and demonstrated difficulty in securing employment because of their disability. Under this approach a State unit which chooses to do so, would be able to initiate services to an individual immediately on application because of the likelihood on the basis of the presenting case records that the individual will be found eligible after a formal evaluation is completed.

State units will be expected to develop the policies under which services will be provided on the basis of an interim determination of eligibility and the procedures to be followed in achieving the final determination. The final determination of eligibility is required to be completed within 90 days.

This procedure is not derived from the 1978 Amendments nor is it intended to replace established procedures for the formal determination of eligibility. Its use, however, is based on the understanding that an individual's history of physical or mental disability and the clinical impressions gained by a professional rehabilitation worker at the time of initial contact can frequently be sufficient for determining the feasibility of providing vocational rehabilitation services to an applicant for services. The ability to begin a program of vocational training services and other services immediately on the basis of an interim determination of eligibility is expected to reduce many of the delays currently experienced by severely handicapped applicants for vocational rehabilitation services.

Special attention will be given to reviewing the experience of those State units which experiment with the use of an interim determination of eligibility. It is expected that States might wish to demonstrate the effectiveness of this approach with certain groups of severely handicapped individuals or in selected locations within a State.

The regulations do not propose specific criteria to be adopted by all States in applying an interim eligibility methodology. Public comment is especially desired on factors which might be considered in developing such criteria and whether they should be uniformly applied in all State programs.

Consideration was also given to revising § 1361.31 to add a special eligibility determination requirement for individuals with specific learning disabilities who are referred for State vocational rehabilitation agency services. When these individuals have a physical or mental disability in connection with their learning disability, they may of course be determined to be eligible for vocational rehabilitation

services. A learning disability in and of itself is not considered either a physical or a mental disability for purposes of determining vocational rehabilitation eligibility, however, and these individuals are therefore frequently not found to be eligible under the vocational rehabilitation service program. It is recognized that appropriate diagnostic evaluations often provide evidence of minimal brain dysfunctions or other physical or mental disabilities and it has been suggested, therefore, that § 1361.31 be revised to require special diagnostic examinations for each person with a specific learning disability to determine whether a physical or mental disability does in fact exist.

Public comment is invited on the feasibility of adding this special requirement for this group of applicants for vocational rehabilitation services.

**§ 1361.32 Evaluation of vocational rehabilitation potential: Preliminary diagnostic study.** This section has been revised in order to reduce processing time for applicants wishing vocational rehabilitation services by providing that available current medical information will be used to the greatest extent possible in carrying out the preliminary diagnostic study. This administrative revision will eliminate the need for a special medical examination to be carried out for most applicants for vocational rehabilitation services.

There has been considerable discussion in recent years about the elimination of a requirement for a general medical examination under the preliminary diagnostic study as another way to reduce administrative processing time. It must be pointed out therefore that there has in fact never been a regulatory requirement for a general medical examination of this type. The need for an appraisal of an applicant's current health status continues to be apparent, however, and this requirement has been retained.

**§ 1361.33 Evaluation of rehabilitation potential: Thorough diagnostic study.** This section has been revised to require that a visual examination be provided to all deaf clients of State vocational rehabilitation units. For many years, State units have been required to provide hearing examinations to individuals with visual problems and rehabilitation workers concerned with the vocational rehabilitation of deaf individuals have frequently pointed out a need for a comparable procedure for deaf persons. Since resources for visual examinations are readily available to the public, it does not appear that this new administrative requirement will place a

processing or a financial burden on State units.

§ 1361.35 *Certification: Eligibility; extended evaluation to determine vocational potential; ineligibility.* This section has been revised to provide for the possible referral to the State's independent living service program of individuals determined not to be eligible for vocational rehabilitation services.

This section has also been revised to cover those situations when a case is closed after an application has been submitted but before a determination of eligibility has been made. This administrative change is necessary to govern those situations where, for certain reasons, applicants do not follow through on their stated intentions to secure vocational rehabilitation services.

§ 1361.38 *Services to handicapped American Indians.* This new section has been added to ensure that vocational rehabilitation services are available to handicapped American Indians in each State in a manner and at a level fully consistent with services available to other handicapped individuals in the State.

A new discretionary grant program of vocational rehabilitation services has been authorized under the 1978 Amendments for those handicapped American Indians who reside on Federal or State reservations. If a State continues to estimate its population for allocation purposes by including those Indians on reservations being served under a special project, the State unit will continue to be responsible for providing services on those reservations.

§ 1361.41 *The individualized written rehabilitation program: Content.* This section has been revised to provide for the joint development of individualized programming for individuals eligible for both special education and vocational rehabilitation services.

§ 1361.42 *Scope of State unit programs: Vocational rehabilitation services for individuals.* This section has been revised to clarify that "maintenance" and "transportation" are supportive vocational rehabilitation services which are provided only in conjunction with other vocational rehabilitation services contributing directly to achieving rehabilitation objectives.

This section has also been revised to broaden the definition of "institutions of higher education" in which vocational training services may be provided to include vocational schools, technical institutes and hospital schools of nursing. As revised, the definition is consistent with that used by the U.S.

Office of Education in the administration of general student aid programs.

§ 1361.45 *Standards for facilities and providers of service.* This section identifies standards to be adopted by State units as regards facilities to be used for providing services. It is recognized that certain States have established standards more stringent than those standards identified in the regulations. Where the construction of a facility is involved, it is expected that the more stringent State standards will be applied.

§ 1361.48 *Administrative review of agency action and fair hearings.* This section has been revised to reflect the new opportunity available to handicapped individuals to request the Secretary of Health, Education, and Welfare to review any decision made by a State unit director with which the individual is dissatisfied. This procedure is in addition both to the formal procedures for administrative review and fair hearing and to the procedures available to a handicapped person under Section 504 of the Act.

§ 1361.49 *Protection, use, and release of personal information.* This section has been revised in order to clarify the ways in which personal information about State unit clients and applicants may be obtained and released. This section also identifies policies covering the different uses for which the personal information may be released.

The revisions to this section have been made to bring about administrative consistency with the requirements of the Privacy Act and to deal with specific problems of information sharing which have been identified in recent years but which have not been resolved by the existing regulations. These revisions strengthen the safeguards for the rights of handicapped individuals to maintain the confidentiality of their personal information and emphasize the need for securing the consent of the individual before information may be released.

Requirements affecting the release of information about clients are not fully consistent among all public agencies which provide services to handicapped individuals. It is expected that State vocational rehabilitation programs will enter into organizational agreements covering this matter in order to bring about the greatest possible degree of consistency.

§ 1361.51 *Scope of State unit program: Establishment of rehabilitation facilities.* This section has been revised to indicate that staffing assistance under an establishment project may now provide for "additional" as well as "initial" staff of

a rehabilitation facility. In addition, under the revised section the need for an "establishment" project must be identified in the State plan for rehabilitation facilities required under § 1361.23.

§ 1361.52 *Scope of State unit program: Construction of rehabilitation facilities.* This section has been revised to provide that the need for a construction project must be identified in the State plan for rehabilitation facilities required under § 1361.23.

§ 1361.54 *Scope of State unit program: Telecommunications systems.* This section has been added to cover the newly authorized group service under the State plan designed to facilitate the use of different types of existing telecommunication systems.

§ 1361.55 *Scope of State unit program: Special materials for blind individuals and deaf individuals.* This section has been added to cover the newly authorized group service under the State plan enabling State unit use of special materials for deaf individuals, blind individuals, and to the extent possible, deaf-blind individuals. In communities where there are substantial numbers of handicapped individuals from particular minority groups, it is expected that whenever possible the native language of these individuals will be used in connection with these special materials.

§ 1361.57 *Utilization of profitmaking organizations.* This section has been added to cover the new State plan requirement that permits the State unit to enter into contractual arrangements with profitmaking organizations in order to provide on-the-job training for handicapped individuals participating under the projects with industry program (§ 1362.43 of the regulations) and the business opportunities for handicapped individuals program (§ 1362.107). Because of its specific applicability to these two assistance programs, it is expected that the use of this service will be somewhat limited.

#### Subpart C

§ 1361.71 *Vocational rehabilitation services for individuals.* This section has been revised to clarify that certain special costs may be provided by State units under the State plan. These include the State unit costs of determining the eligibility of a handicapped individual to participate in the business opportunity program for handicapped individuals under § 1362.107 and the costs of native healing practitioners who provide services to handicapped American Indians under the ongoing vocational rehabilitation service program.

§ 1361.74 *Construction of rehabilitation facilities.* This section has been revised to provide that Federal financial participation in the cost of construction of any rehabilitation facility will be no more than 50 percent of the total costs of the construction project.

Under the Act, the Federal share in the costs of a construction project is required to be the same percentage as that established under Section 645(g) of the Public Health Services Act, popularly known as the Hill-Burton program. Although the authority for this program is still in effect, there have been no appropriations under it since 1974 and matching rates have not been established and distributed by the Hill-Burton State agencies since 1976. In view of this, a Federal matching rate of 50 percent is being proposed for construction projects under the Rehabilitation Act since this percentage had been the most frequently used rate for the construction of rehabilitation facilities under the Hill-Burton program.

§ 1361.75 *Other vocational rehabilitation services for the benefit of groups of handicapped individuals.* This section has been revised to provide that Federal financial participation will be available for the costs of the newly authorized services for groups of handicapped individuals.

§ 1361.76 *State and local funds.* This section has been revised to clarify the use of certified funds to secure Federal matching funds under special cooperative programs with other agencies. The policy announced by the Commissioner in Program Instruction RSA-PI-78-22 dated June 5, 1978, "Termination of Federal Financial Participation for Third Party Funding Agreements," has been withdrawn and the use of these funds will be continued in accordance with this proposed section.

§ 1361.85 *Allotment of Federal funds for vocational rehabilitation services.* This section has been revised to prescribe the special allotment procedures to be followed when a special project for vocational rehabilitation services for handicapped American Indians has been awarded under Section 130 of the Act. Under the procedures to be followed, the State will not begin to subtract the population of American Indians residing on reservations being served under a special project from its population estimates until after the end of the first full fiscal year in which the tribal project is operating.

§ 1361.86 *Payments for allotments for vocational rehabilitation services.* This section has been revised to

eliminate the previous requirement that States meet the Secretary's General Standards for Evaluation in order to receive payments under Title I of the Act. The 1978 Rehabilitation Act Amendments removed the requirement that failure to meet these General Standards be used as a basis for denying funds to a State vocational rehabilitation service program.

§ 1361.88 *Liquidation of unpaid obligations.* This new section has been added to require that all obligations be liquidated within one year of the close of the fiscal year in which they were incurred. This section incorporates the policy promulgated by the Commissioner in "Program Instruction 77-20," dated May 5, 1977, intended to bring about greater administrative efficiency.

#### Subpart D

#### Subpart E

Subpart D of Part 1361, covering Payment of Costs of vocational Rehabilitation Services for Disabled Beneficiaries from the Social Security Trust Funds, and Subpart E governing Vocational Rehabilitation Services for Supplemental Security Income Recipients are not being revised at this time since the 1978 Amendments to the Rehabilitation Act did not directly affect these programs.

#### Subpart F

Subpart F of Part 1361 covers the program of grants for the innovation and expansion of vocational rehabilitation services. Within Subpart F, the following regulatory changes are proposed.

§ 1361.151 *Special project requirements.* This section has been revised to provide that any construction of a rehabilitation facility undertaken under an innovation and expansion project must be essential to the conduct of the project and must be reflected in the State plan for rehabilitation facilities. The section has also been revised to clarify that grants may not be made solely for the purpose of planning future activities.

This section has not been revised insofar as the length of the project period for an innovation and expansion project is concerned. Although it appears that there may have been some legislative intent to extend the project period under this program from three years to five years, Section 121(b) of the Act, which controls the length of the project period, was not revised under the 1978 Amendments.

§ 1361.153 *Payments from allotments.* This section has been revised to clarify that the matching rate

for the construction of a rehabilitation facility under the innovation and expansion program is 50 percent—the same rate in effect elsewhere under the State plan for vocational rehabilitation services.

#### Subpart G

A new Subpart G has been added to Part 1361 to formalize the procedures to be followed when a hearing is necessary either because a State plan has been disapproved on the basis of its not meeting Federal requirements or because of a failure on the part of the State to administer the plan in compliance with the required provisions of the plan. These formal hearings procedures identify prehearing requirements which must be followed, the conduct of the hearing itself, and the post hearing procedures including the final determination made as a result of the hearing.

Although it is not expected that the procedures identified in this subpart will be extensively used, their publication in the regulations will clarify roles and responsibilities of all parties if a hearing should be necessary. Subpart G is based on the "Ad Hoc Rules of Practice and Procedure for Hearings on Conformity of State Plans for Vocational Rehabilitation Services with Federal Requirements under Title I of the Rehabilitation Act of 1973, as amended," which was published in the *Federal Register* of May 25, 1976.

#### Part 1362

Part 1362 has been substantially revised to update regulatory requirements affecting previously authorized discretionary grant and other assistance programs and to implement new discretionary programs authorized under the Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978.

#### Subpart A

Subpart A of Part 1362 includes revised general provisions which apply to all projects and other activities assisted under Part 1362.

Within Subpart A, the following significant regulatory changes are proposed:

§ 1362.2 *Application content and procedures for submitting applications.* This new section has been added to identify procedures which the Commissioner will follow in announcing the availability of funds in any program category covered under Part 1362 when there is a competition between applicants for available program funds.

These procedures reflect current Departmental practice in this regard.

§ 1362.3 *State unit review and approval of applications.* This section has been revised to require State unit prior approval of applications for Federal support for only those proposals which include the direct provision of vocational services to handicapped individuals. Under previous regulations, State vocational rehabilitation units were expected to approve a broad range of applications for Federal grant assistance. If the application was not approved by the State unit, it was not considered eligible for Federal funding. Since there is no longer any basis for this practice under the Rehabilitation Act of 1973, as amended, the State unit prior approval function will be exercised only in those cases where the proposed project involves vocational rehabilitation services delivery to State unit clients. State unit approval is essential in projects of this type in order to ensure the cooperative responsibility which leads to project success.

§ 1362.4 *Project period.* This section establishes 5 years as the maximum period of time for which the Rehabilitation Services Administration will generally commit funds for a multi-year period. If a grant with a multi-year project period has been awarded, the grantee is assured of support during the entire period provided that project management has been effective and funds for the overall program category have been appropriated by the Congress. A grantee in this situation is not required to compete with other applicants for the available funds since a commitment has been made.

At the end of the multi-year project period, however, there is no longer a Federal commitment and any grantee wishing additional support must compete with other applicants. After a five-year project period has terminated, a grantee may submit an application for extended support through an additional requested period of time. At this time there is no Federal commitment and the grantee must compete on the same terms and conditions as all other applicants for available grant funds.

Where a project support commitment level of other than five years has been established, the individual program regulation discussions in Part 1362 so indicate.

§ 1362.5 *Matching requirements.* This section establishes 90 percent as the maximum Federal matching rate in Rehabilitation Services Administration discretionary projects. Where a Federal matching rate other than 90 percent is established, the individual program

regulation discussions in Part 1362 so indicate.

§ 1362.8 *Special requirements for projects which involve construction.* This section has been added to combine all requirements affecting projects in which construction activities are to be carried out. These requirements reflect both general Department of Health, Education, and Welfare requirements and requirements which are specific to the Rehabilitation Act.

§ 1362.10 *Advisory committee membership.* This section has been added administratively to require that when project committees are established, their membership must be broadly representative and must include handicapped persons in order to ensure the relevance of project activities to service needs.

§ 1362.11 *Special requirements affecting handicapped individuals with special communication problems.* This section has been added to extend to discretionary grant programs the State plan requirement that project staff be available which is able to communicate in the native languages of ethnic minorities or able to communicate with handicapped persons with special communication problems such as blind or deaf individuals. This extension is intended to bring about consistency within the State vocational rehabilitation service delivery system and ensure that all handicapped individuals with communication problems be provided an equal opportunity for assistance. For purposes of this requirement, project staff need not be full-time paid personnel but may include persons employed on a temporary or part-time basis specifically for this purpose. It is expected that volunteer personnel will also be available to a limited extent to meet this requirement.

§ 1362.12 *Accessibility to project activities by handicapped persons.* This section has been added to require that facilities used in projects assisted with Rehabilitation Services Administration funds meet all the requirements of the Architectural Barriers Act of 1968. The section also requires that any facilities to be used for carrying out programs funded under Part 1362 be free from transportation or communication barriers which might in any way restrict the participation of any handicapped person in project activities.

§ 1362.16 *Other HEW regulations which apply.* This new section has been added to identify those current Departmental regulations which apply to project activities funded under Part 1362.

#### Subpart B

Subpart B of Part 1362 includes those grant programs specifically designed for the provision of vocational rehabilitation services to handicapped individuals. Under this group of projects, the services are of the same type as those provided under State vocational rehabilitation programs and the individuals receiving the services are generally clients of the State vocational rehabilitation programs.

Within Subpart B the following significant regulatory changes are proposed:

§ 1362.40 *Special projects and demonstrations: Improved services to severely handicapped individuals.* This section has been revised to reflect the fact that the authority for these projects under Section 311 of the Act, which had previously been under Section 304(b), was substantially changed under the 1978 Amendments.

In the first place, the revised authority refers to the persons to be served as "handicapped individuals . . . irrespective of age or vocational potential." Since the term "handicapped individual" is defined in Section 7(7) of the Act to mean a handicapped individual who is at or near working age and for whom a vocational potential is apparent, this use of the term presented many problems in the development of regulations. Because of this unusual use of the term "handicapped individual," it is expected that the scope of services within these projects will extend beyond vocational rehabilitation services and the individuals to be served will include other handicapped persons in addition to handicapped clients of the State vocational rehabilitation service programs.

This grant authority was also changed by the elimination of the previous special reference to "older blind individuals" and "deaf individuals whose maximum vocational potential has not been reached." Although some special projects and demonstrations under this section will continue to focus on services to blind or deaf individuals, the focus on these specific categories is expected to be less direct than it had previously been.

The revised authority also provides authority for the construction of a rehabilitation facility in connection with carrying out a special project or demonstration. The construction of a rehabilitation facility under this authority is intended to occur only when demonstrated to be essential for the conduct of a program of service delivery, however, and existing facilities

will be utilized for service delivery to the very greatest extent possible.

§ 1362.43 *Projects with industry.* This section has been revised to reflect the expanded authority for the Projects with Industry Program under Section 621 of the Act. Under the expanded program, the scope of a project includes job modification, the distribution of special aids, appliances or equipment adapted to the needs of handicapped individuals, the modification of facilities and equipment, and the establishment of specialized job placement services.

The State vocational rehabilitation unit is expected to maintain a continuing relationship with the handicapped individuals participating in any project in order to ensure a continuity of vocational rehabilitation service delivery. If employment should be terminated for any handicapped individual within a three-year period, the Commissioner shall be entitled to require the repayment of a portion of funds made available to the employer.

In addition to these programmatic revisions, the 1978 Amendments imposed a ceiling of 80 percent on the amount of the total project costs which may be borne by the Rehabilitation Services Administration. Any currently operating project under this program will be required to finance the appropriate match when the next grant award is made.

§ 1362.45 *Projects for American Indian vocational rehabilitation services.* This section has been added to cover a new grant program of vocational rehabilitation services for handicapped American Indians who reside on Federal or State reservations. Under this program a governing body of an Indian tribe may develop and implement a program of vocational rehabilitation services provided that the services are comparable to those services provided by the State unit to other handicapped persons in the State. In order to ensure that the tribal vocational rehabilitation program is in fact comparable, the tribal program will be required to meet certain of the basic State plan requirements met by the State unit in the administration of the State program. Special attention is to be paid by the tribal program to the priority to be given to severely handicapped persons in the provision of services, the reliance on an individualized written rehabilitation program to structure service planning and delivery for each client, the use of similar benefits for which clients may be eligible, and the participation of handicapped American Indians in tribal policy and program development.

General administrative requirements specified under the Indian Self-

Determination and Education Assistance Act are also applicable under this program. In line with these requirements, it is expected that all applications which meet acceptable standards of program quality will be approved to the extent that funds are available and technical assistance will be provided to tribes where necessary to assist in meeting minimum program standards.

Services are to be provided under these projects only to those handicapped American Indians who are actually residing on reservations. Services are not to be provided to those American Indians who live near reservations. Those handicapped American Indians who for any reason have regularly lived away from the reservation during the week but return to the reservation on weekends, however, are considered to be residents of the reservation.

#### *Subpart C*

Subpart C of Part 1362 continues to cover assistance available to sheltered workshops and other rehabilitation facilities which are concerned with providing vocational rehabilitation services to handicapped individuals.

Within Subpart C the following significant regulatory changes are proposed:

§ 1362.52 *Rehabilitation facility staffing.* This section has been revised to reflect the elimination of the "initial" staffing limitation under Section 301 of the Act.

Staffing grants for rehabilitation facilities may now be made to meet identified needs for additional staff for any facility which was constructed after September 26, 1973, the day on which the Rehabilitation Act of 1973 was enacted.

§ 1362.54 *Grants for establishing or operating comprehensive rehabilitation centers.* This section has been added to implement a newly authorized program under Section 305 of the Act for establishing and operating comprehensive rehabilitation centers in communities throughout the country. The concept of a "comprehensive rehabilitation center" is a flexible one which may be fitted to meet any community's special service needs for handicapped individuals. A comprehensive rehabilitation center may mean a single facility which provides direct rehabilitation services to physically and mentally disabled persons; a consortium of facilities which are located throughout a community and which are coordinating their services under the comprehensive rehabilitation center program in order to achieve

better information, referral and service delivery potential; or a community facility which serves primarily as an information and referral resource center which assists handicapped persons and other community agencies and facilities in securing needed services but which does not itself provide services to handicapped persons.

Comprehensive rehabilitation centers are seen primarily as focal points within a community for information and referral resources for handicapped persons. Interpreters for deaf persons, readers for blind individuals, attendants, legal assistance personnel and other essential service providers might be available from the centers which will retain rosters of persons who are available to provide services directly to handicapped persons or to other community facilities or agencies. The comprehensive rehabilitation centers are also expected to be important community resources for providing technical assistance to community agencies and facilities concerned with meeting the special requirements imposed under Section 504 of the Rehabilitation Act.

It is expected that existing facilities will be used as community comprehensive rehabilitation centers and very few new centers will be constructed specifically for the purpose of implementing this program.

Grants will be awarded by the Rehabilitation Services Administration only to designated State units for vocational rehabilitation. The State units may in turn award subgrants or contracts to community agencies or facilities which will directly operate comprehensive rehabilitation center programs.

§ 1362.55 *Loan guarantees for rehabilitation facilities.* This section implements a new authority for the Commissioner to guarantee the payment of principal and interest on loans for the construction of rehabilitation facilities. These loans may be made by non-Federal lenders and by the Federal Financing Bank. Any rehabilitation facility for which a loan guarantee is to be provided under this program is required to meet those standards which are applied to facilities constructed with direct Federal construction grant support and must be identified in the State plan for rehabilitation facilities.

This section describes procedures for securing and repaying loans and defines the provisions of the Loan Guarantee Agreement which must be completed between the Commissioner and each applicant.

*Subpart D*

Subpart D is reserved for additional regulations which the Rehabilitation Services Administration may develop at some time in the future. Subpart D currently contains regulations governing the rehabilitation research program. The Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 transferred responsibility for this program to the National Institute of Handicapped Research which will be administering the program in close consultation with the National Council on the Handicapped.

The National Institute of Handicapped Research has not yet proposed regulations for the implementation of the expanded rehabilitation research program but it is expected that these regulations will be proposed after the National Institute has been fully established and organized.

*Subpart E*

Subpart E of Part 1362 covers the different categories of training supported under the rehabilitation training program. Although no new major training categories were authorized under the 1978 Amendments, the regulations have been revised to identify the existing training grant program categories more clearly than they have been in the past.

Within Subpart E, the following significant regulatory changes are proposed:

§ 1362.70 *Rehabilitation long-term training.* This section covers long-term academic and non-academic training grants in the different established rehabilitation disciplines and grants for the support of special experimental or innovative rehabilitation training efforts.

The 1978 Amendments added the fields of rehabilitation psychiatry and rehabilitation job placement to the list of fields in which long-term training grants are to be made available under the rehabilitation training grant program. The 1978 Amendments also broadened the scope of the training to be supported by identifying as a purpose of the program the training of medical, social, and psychological rehabilitation service personnel in addition to the vocational rehabilitation service personnel who had previously been identified in the Act. It is expected that training in certain professional fields such as physical medicine and rehabilitation, prosthetics-orthotics, physical therapy and occupational therapy will therefore be required to be somewhat less directly linked to the State vocational rehabilitation service

program in order to be eligible for funding in the future.

§ 1362.71 *State vocational rehabilitation unit in-service training.* This section provides specific requirements for the State in-service training grant program. These in-service training grants have been awarded under the rehabilitation training grant program since 1959 but they never before been distinctly identified in the regulations. Grants are awarded to the designated State units in each State since these units are the primary providers of rehabilitation services.

§ 1362.72 *Rehabilitation continuing education program.* This section identifies specific requirements for the rehabilitation continuing education programs. These programs make training available to rehabilitation personnel who are employed in either public or private agency settings. The training under these programs is intended to meet recurrent staff development needs and generally includes training which is more efficiently conducted on a multi-State basis.

§ 1362.73 *Rehabilitation short-term training.* This section consolidates in a single section regulatory material previously located throughout Subpart E concerning the rehabilitation short-term training program.

§ 1362.74 *Rehabilitation research fellowships.* This new section consolidates in a single section regulatory material previously located throughout Subpart E concerning the rehabilitation research fellowship program.

Under this program fellowships have been awarded for many years to individuals wishing to undertake an advanced research project or preparing for careers as researchers in the rehabilitation of physically and mentally disabled persons. The 1978 Amendments revised the authority for the rehabilitation research fellowship program by omitting any specific reference to it. Because there is no evidence of a Congressional intent to repeal authority for the rehabilitation research fellowship program and because of its longstanding authorization in connection with the authority for "short-term training and instruction," it is planned that the program will continue to be administered within the Rehabilitation Services Administration as part of the rehabilitation training grant program.

*Subpart F*

Subpart F of Part 1362 covers the Helen Keller National Center for Deaf-Blind Youths and Adults.

This subpart, as revised, now provides that, to the extent feasible, the Helen Keller National Center shall seek reimbursement from other programs for the costs of services provided by the Center.

*Subpart G*

Subpart G is reserved for additional regulations which the Rehabilitation Services Administration may develop at some time in the future.

Subpart G currently contains regulations concerned with program evaluation. Since the Commissioner carries out program evaluation studies under contract and since program requirements are included within the scope of each contract, special regulations in this area are not considered to be necessary.

It is also important to note that under the Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978, the use of the Secretary's General Standards for Evaluation has been substantially changed and there is no longer a requirement that the General Standards be used to determine whether funds for any programs or projects under the Act should be withheld. The General Standards will now be used as a tool for program development rather than as a measure of program compliance. As a result, Part 1370 which contains these General Standards will be removed from the Code of Federal Regulations and will no longer be published as regulations.

It is planned that the General Standards will be published in the *Federal Register* as a Notice for the use of State units, public and other nonprofit grantees, and others interested in the evaluation of rehabilitation programs. Although Federal funds may no longer be cut off because of a failure to meet the General Standards, the Standards can be expected to continue to be a useful and valuable tool in the conduct of program evaluation studies.

*Subpart H*

Subpart H of Part 1362 is a new subpart combining a number of different special project authorities which extend beyond the traditional scope of vocational rehabilitation service delivery. Some of these new programs relate to independent living services while others are designed to provide services which extend beyond the traditional vocational rehabilitation purposes.

Within Subpart H, the following significant regulatory changes are proposed:

§ 1362.100 *Projects for the establishment of centers for independent living.* This section has been added to implement a new grant program to assist in establishing and operating centers for independent living. These centers are expected to be multi-purpose facilities able to provide a broad range of assistance to severely handicapped persons in order to help them to achieve greater independence in either their family or community living situations. Severely handicapped persons will be substantially involved in the management and operation of centers operating under this program but no attempt has been made to establish by regulation a specific percentage requirement defining the necessary extent of participation by handicapped persons in center management and operation. The extent to which handicapped persons are responsible for center operations can be expected to be an important factor to be considered in the competitive review of applications, however, and the development of self-help organizations will be encouraged under this program.

For the first six months of any fiscal year, only the designated State units which administer the State's independent living program will be eligible to apply for a grant. If a State indicates by that time that it does not intend to apply for a grant, any local public agency or private nonprofit organization in the State will be eligible to apply directly for Federal funds. Every effort will be made in the administration of this program to ensure that the availability of funds is announced in a timely manner so that all eligible applicants may have an adequate opportunity to participate.

§ 1362.101 *Grants for independent living rehabilitation services for older blind individuals.* This section has been added to implement a new grant program designed to assist older blind individuals in adjusting to the onset of blindness and in learning to function independently in spite of their disability. This program is intended to be primarily short-term in its effect and it is not intended to provide services to any single individual for an extended period of time.

Individuals to be assisted under this program will be 55 years of age or older and will be expected to have experienced a severe loss in visual acuity.

Applications for Federal grants may be made only by the State units administering the State's independent living service program. The State units may in turn award subgrants to other

public and nonprofit agencies and organizations in the State.

When any methods demonstrated under one of these projects have been found to be unusually effective, they will be expected to be integrated within the ongoing State programs for independent living services carried out under State plans.

§ 1362.102 *Grants for the protection and advocacy of the rights of severely handicapped individuals.* This section has been added to cover a newly authorized program of protection and advocacy assistance for severely handicapped individuals being provided independent living services under either the State program for independent living services or under any other special project concerned with independent living under Subpart H.

These protection and advocacy projects will play a role in independent living programming similar to that played by the client assistance programs in the vocational rehabilitation program. Whereas only a State vocational rehabilitation program may apply for client assistance program funds, however, the State vocational rehabilitation program unit is specifically prohibited from administering a protection and advocacy project under this section.

It is expected that many of these protection and advocacy programs will be administered by the same agency which administers the State's system for protection and advocacy of individual rights under the Developmental Disabilities Assistance and Bill of Rights Act. In order to provide maximum administrative flexibility to States in designating an agency under this program, however, eligibility for applying for grant funds has not been limited to agencies which are currently administering protection and advocacy systems.

§ 1362.103 *Client assistance projects.* This section has been relocated in Subpart I and revised to strengthen the role of the client assistance project staff in working with the State vocational rehabilitation programs.

§ 1362.104 *Project grants for interpreters for the deaf.* This section has been added to implement a new program of interpreter services for deaf individuals. Under this program, designated State units will be able to make special arrangements to provide interpreter services directly to deaf individuals and to other agencies and organizations which work with deaf individuals. No agency or organization will be charged for these services during the first year in which interpreter services are provided to them, but after

that time they will be expected to reimburse the State unit for services which are provided. A primary purpose of this program is to assist those agencies and organizations which are having difficulty in meeting requirements under section 504 of the Act designed to eliminate barriers to the full participation of deaf and other communicatively disabled persons. It is expected that after an initial period of outside assistance under this grant program, these agencies will be better able to develop their own resources for meeting these responsibilities.

Interpreters participating in this program shall be expected to be certified by any national certifying organization recognized by the Commissioner or by a recognized State certifying agency or organization. The regulations do not propose a single national certification requirement.

§ 1362.105 *Special projects for the training of interpreters for the deaf.* This section has been added to cover a newly authorized grant program for the training of interpreters for deaf persons. Although significant training of interpreters for deaf persons has been supported over the years under the rehabilitation training grant program (Subpart E), the training has been focused primarily on assisting deaf persons in matters related to their vocational rehabilitation. Under this new program which will be administered by the Office of Information and Resources for the Handicapped in the Office of Human Development Services, no special reference to the vocational rehabilitation service program will be required and the employment goals of trainees will be broad.

These grants will assist in the establishment of new training programs or the expansion of existing ones but no more than a total of twelve programs may be assisted nationally.

§ 1362.116 *Projects for reading services for blind individuals.* This section has been added to implement a newly authorized grant program to provide a broad scope of reading services to blind individuals. State units and agencies and organizations with a national scope may apply for these grants which will support such project activities as direct reading from printed materials, transcription into braille, radio reading services and tactile reading for deaf-blind persons.

It is expected that existing reading service resources will be utilized to the greatest extent possible with special reliance being put on the Library of Congress and its network of libraries serving blind and visually handicapped

individuals. Reading services under this program, however, are expected to be made available only for handicapped persons not eligible to receive them under any other program.

§ 1362.107 *Business opportunities for handicapped individuals.* This section has been added to cover a new program of direct Federal support for handicapped persons who wish to establish and operate commercial or other kinds of enterprises. In order to participate in this program, each handicapped individual must be certified as eligible by the State unit in the State in which he or she resides. Most handicapped individuals interested in participating in the program will already be clients of State vocational rehabilitation programs at the time that they request to be certified. Other individuals may also request to be certified, however, and in these cases, the State unit will secure sufficient information not only to determine whether the individual is eligible for services under the State vocational rehabilitation program but also to assess the individual's capacity to operate an enterprise of the general type being planned. A State unit might begin a program of vocational rehabilitation services for any handicapped individual who had not previously been a client but who has been determined to be eligible for vocational rehabilitation services because of a request for certification under this program.

The State unit evaluation is focused on the capacity of the handicapped individual to establish or operate an enterprise and will not be concerned with the likelihood that the enterprise being proposed by the handicapped individual will be successful. The State unit may assist the handicapped individual in preparing the comprehensive business plan which is required as part of the application for Federal assistance and in assisting the individual in applying to the Small Business Administration for Handicapped Assistance Loan program funds.

The purpose of this program is not to provide rehabilitative services but rather to assist in opening up business opportunities. There is no limitation on the type of profit-making enterprise which may be established and operated and the form of the enterprises may include proprietorships, corporations, and cooperatives. It is expected that assistance will be provided to a large number of enterprises engaged in developing or marketing products which meet special needs of handicapped persons throughout the country.

A limitation on the amount of Federal assistance provided to any enterprise has been set at \$100,000. This amount reflects the experience gained in the administration of other Federal programs of assistance for handicapped persons and persons from minority groups who wish to establish or operate business enterprises.

It is expected that the Handicapped Assistance Loan Programs of the Small Business Administration will continue to be the primary Federal resource for handicapped persons interested in establishing commercial or other enterprises. A grant will not be awarded if sufficient funds are available on reasonable terms from private sources, or from other local, State, or Federal programs. The Commissioner will generally refer to the Small Business Administration and individual who has not yet explored the availability of loans from that office. Grant funds may be used to supplement a Handicapped Assistance Loan and, in addition, funds awarded by the Commissioner may be used by the individual to attract additional necessary capital from other sources.

Because of the unusual nature of this new authority, the Commissioner may utilize different administrative approaches in its implementation. The objective of pursuing alternative administrative approaches will be to demonstrate ways to develop the closest possible working relationships with the Small Business Administration.

Section 622 of the Act under which this program is authorized provided that "within ninety days after the effective date of this section, the Commissioner shall promulgate regulations to carry out this section." Because of the fact that funds to initiate this program were not included in the FY 1979 budget for the Rehabilitation Services Administration and because of a desire to propose all regulations implementing the 1978 Rehabilitation Act Amendments simultaneously, the publication of these regulations has been delayed until this time.

§ 1362.108 *Special projects and demonstrations for making recreation activities accessible to handicapped individuals.* This section has been relocated in Subpart H but has not been significantly revised. This program is primarily intended to be a demonstration program focusing on ways in which recreation activities can be made fully accessible to handicapped individuals.

§ 1362.109 *Project grants for the initiation of special recreation programs for handicapped individuals.* This section has been added to cover a new

grant program to assist communities in initiating programs of recreation services to handicapped individuals. The recreation services are expected to be broad in scope and to provide equal opportunity in recreation for handicapped individuals.

§ 1362.110 *Technical assistance.* For many years the Rehabilitation Services Administration has provided technical assistance to rehabilitation facilities to assist them in improving their overall level of program operations. The 1978 Amendments included a special authority in Section 506 for the Secretary to provide technical assistance in matters relating to the removal of architectural, transportation and communication barriers but did not include specific authority for the generalized technical assistance program to assist rehabilitation facilities which had been carried out successfully for many years.

Section 12 of the Act provides a general authority for the Commissioner to provide "technical assistance" and it is planned that the ongoing technical assistance program for rehabilitation facilities will be continued under this authority. Since it appears that the Congress intended that the Commissioner provide technical assistance relating to the removal of architectural, transportation, and communication barriers in addition to the ongoing technical assistance for rehabilitation facilities, this expanded focus has been reflected in Subpart H.

#### Part 1363

A new Part 1363 is being added to implement the State plan for independent living rehabilitation services newly authorized under Title VII of the Act. Under this State-Federal service program, the State unit which provides vocational rehabilitation services in each State under Title I may, if the State so desires, provide independent living services to severely handicapped individuals. Independent living services are rehabilitation services aimed at assisting a severely handicapped individual to gain maximum control over the management of his or her life activities and to minimize reliance on others in providing for one's self-maintenance. These services do not necessarily have a vocational objective and may include a number of services not otherwise easily available for severely handicapped persons in the State such as attendant care, housing, health maintenance and therapeutic treatment. Independent living services may also include basic vocational rehabilitation services such as interpreter services for deaf persons

and reader services for blind persons which—when provided under Title VII—are provided for the purpose of assisting a severely handicapped individual to achieve independent living goals.

The independent living program is distinguished from the vocational rehabilitation service program primarily by the fact that one of the purposes of providing the services is to assist the individual to improve or maintain his ability to function more independently in family and community rather than to achieve a vocational goal. Title VII also provides that an objective of independent living rehabilitation services is to assist a severely handicapped individual to "engage or continue in employment," however, so there can be expected to be some individuals who will be eligible concurrently for service under both the vocational rehabilitation and independent living services programs in a State. In such cases, it is generally expected that the vocational rehabilitation program will be the primary service provider and services will be provided under Title I.

It is expected that for the most part individuals receiving independent living services will be persons who have been considered too severely disabled to benefit meaningfully from vocational rehabilitation in terms of their employability. On the other hand, it is expected that many severely handicapped persons who will receive independent living services will demonstrate a vocational potential and will be referred to the State's vocational rehabilitation program for eventual vocational placement. It must be pointed out in this regard, however, that the Title VII program is not intended to replace the "extended evaluation" provisions under Title I. Where the feasibility of providing vocational rehabilitation services is unusually difficult to determine for an applicant for vocational rehabilitation services, it is expected that the "extended evaluation" procedures will continue to be followed.

The State plan for independent living services will be administered under a State plan separate from the State plan for vocational rehabilitation services. The proposed regulations for the State plan for independent living services have to a great extent been modeled on the regulations for the State plan for vocational rehabilitation services. Certain areas of the independent living State plan, nonetheless, will be quite distinct from the State vocational rehabilitation program regulations since

they respond to unique statutory requirements of Title VII.

Within Part 1363, the following State plan provisions of special significance are proposed:

**§ 1363.1 Terms.** A definition of "independent living rehabilitation services" is being proposed to include a broad scope of services which may be designed to assist an individual to function more independently in family and community living activities and, where appropriate, to assist the individual to engage or continue in employment. Since the Act indicates that vocational rehabilitation may also be provided as independent living services, the definition specifically includes those services identified in Part 1361.

Group services under the State vocational rehabilitation plan are also included as independent living services and these include both the establishment and construction of a rehabilitation facility. Many centers for independent living meet the definition of "rehabilitation facility" under the Rehabilitation Act on the basis of their functional responsibilities and it is expected that these facilities may be developed under the Title VII authority.

A definition of "severely handicapped individual" is being proposed to describe a client of the State independent living service program. This definition is different from the definition of "severely handicapped individual" used for purposes of ensuring priority of service under the State's vocational rehabilitation program under Part 1361.

**§ 1363.2 The State plan: General requirements.** This section proposes requirements for the State plan for independent living services. If a State wishes, it may submit a State plan which consolidates the State's plan for vocational rehabilitation and developmental disabilities with the State's independent living plan.

**§ 1363.6 State unit for administration.** This section provides that only the State unit designated under the vocational rehabilitation program may serve as the State unit for independent living. This designation includes those State units which provide vocational rehabilitation services only to blind persons. The State unit shall be solely responsible for decisions affecting the provision of independent living services under its program.

**§ 1363.7 Staffing of designated State unit.** This section sets minimal staffing requirements for the independent living service programs and it is not expected that the rehabilitation counselor model will be uniformly transferred without modification from the vocational

rehabilitation service program in all States.

**§ 1363.9 State unit studies and evaluations.** This section requires the State unit to carry out studies to determine the relative effectiveness of different possible means of providing independent living services. The State unit will also be expected to conduct periodic evaluations to measure the overall performance of the unit in providing services. These studies and evaluations are expected to be reflected in the State's independent living services program. In addition, the State unit will be expected to seek the advice of providers and other persons interested in independent living services as policies and procedures are developed under this program.

**§ 1363.11 Provision of technical assistance in poverty areas.** This section requires the State unit to make special effort to provide technical assistance to public and other nonprofit agencies and organizations located in areas of urban or rural poverty.

**§ 1363.13 Utilization of local public and private nonprofit agencies, organizations, and facilities.** This section requires that the State unit will extensively utilize local public and private nonprofit agencies, organizations, and facilities in providing independent living rehabilitation services. In order to encourage the broadest participation by these agencies, organizations, and facilities, it is required that at least 20 percent of the funds received by a State will be used to make grants to these agencies unless a special waiver from this requirement has been granted by the Commissioner. Any grant made by a State unit will be designed primarily to support a program of independent living rehabilitation services for severely handicapped persons eligible under the State plan program.

**§ 1363.14 Independent living services for older blind individuals.** This section requires the State unit to integrate into its program of services any approaches or methods demonstrated under a discretionary project grant under § 1362.101 to be particularly successful in working with older blind individuals.

**§ 1363.16 Other administrative and fiscal requirements.** This section applies to the State independent living service program certain regulatory requirements in effect under the State vocational rehabilitation service program and certain other regulatory requirements in effect throughout the Department of Health, Education, and Welfare. This section further provides that in-kind matching is acceptable under the Title

VII program and that costs of administering the Title VII program are to be borne under Title VII.

§ 1363.31 *Eligibility.* This section provides that in determining eligibility for independent living services there will be a determination that services can feasibly be expected to assist an individual to function more independently or maintain his or her ability to function independently in family or community or to engage or continue in employment.

§ 1363.32 *Determination of eligibility for independent living rehabilitation services.* This section requires that the determination of eligibility under this program will be based to the greatest extent possible on existing case record information. Special diagnostic studies will be conducted in connection with eligibility determination only where absolutely essential.

The purpose of the evaluation will be both to determine eligibility for independent living services and to identify the services which need to be provided.

§ 1363.33 *Certification of eligibility and ineligibility.* This section provides that a certification of eligibility or ineligibility will be completed and reviewed under this program in a manner similar to that carried out under the State vocational rehabilitation program.

§ 1363.34 *Order of selection for services.* This section identifies those groups of severely handicapped individuals specified by the State to be given priority in the provision of independent living services when services cannot be provided to all eligible persons who apply. Special priority is to be given to severely handicapped individuals, including the homebound, who are not receiving vocational rehabilitation services, institutionalized individuals, and individuals in danger of becoming institutionalized. In addition, the Commissioner may identify from time to time other groups of severely handicapped individuals to whom priority is to be given in selecting for service.

§ 1363.35 *The case record for the individual.* This section provides that a case record will be maintained for each individual and further provides that the progress of each individual will be reviewed within the record at least annually.

§ 1363.36 *The individualized written rehabilitation program for independent living rehabilitation services.* This section provides that an individualized written rehabilitation program will be developed for all individuals served

under Title VII. Among other things, the individualized written rehabilitation program will indicate the amount of time estimated to be necessary for the provision of services for each individual.

The procedures for the development of the individualized written rehabilitation program will be similar to those procedures in effect under the State vocational rehabilitation program.

§ 1363.37 *Scope of State program: Independent living rehabilitation services for individuals.* This section sets out the full scope of the independent living rehabilitation services which may be provided to severely handicapped individuals under the State plan.

Some of the independent living services are the same as vocational rehabilitation services provided under Part 1361. When an individual who is eligible for vocational rehabilitation is being provided services solely for the purpose of continuing or engaging in employment, it is required that the individual be served under the vocational rehabilitation program.

§ 1363.38 *Case closure.* This section provides that a case will be closed when the objectives which were set for the individual in his or her individualized written rehabilitation program have been achieved.

§ 1363.39 *Duration.* This section requires that no overall durational requirement be established under the State plan limiting the provision of services. The anticipated duration of each service for any individual must be identified in that individual's written rehabilitation program.

§ 1363.41 *Scope of State unit program: Establishment and construction of rehabilitation facilities.* This section provides that the establishment and construction of rehabilitation facilities supported under the State plan will be expected to be intended primarily to provide independent living services for severely handicapped individuals. Although independent living centers are not specifically identified within the definition of "rehabilitation facility," it is noted that many of these centers fall under this definition and are considered to be rehabilitation facilities.

*Operation Common Sense:* In addition to specific identified policy revisions, these proposed regulations include existing regulations rewritten in an attempt to simplify them and make them generally easier to understand. These revisions have been made in line with the principles of the Department's Operation Common Sense.

*Public Participation:* These proposed regulations were developed on the basis

of an extensive and broadly focused public participation effort. To begin this effort, a national workshop was held January 17-19, 1979 to discuss the full range of policy development issues presented by the 1978 Amendments. Participating in the workshop were approximately 200 representatives of organizations of handicapped individuals, State vocational rehabilitation and developmental disabilities agency personnel, rehabilitation facility personnel, developmental disabilities State planning council staff and members, researchers, and representatives of other Federal agencies.

Individuals attending the national workshop and other individuals representing national organizations with a rehabilitation orientation were encouraged to send written comments and suggestions concerning the policy development activity. Approximately 75 letters were received and these letters were carefully reviewed.

In addition, a series of discussion meetings was organized around specific areas of program development in order to discuss the proposed regulations in the very early stages of their development. Participating in these meetings were providers of services, handicapped consumers and their representatives, and others interested in rehabilitation services.

The National Conference on Independent Living was conducted March 7-9, 1979 for the purpose of securing consumer guidance in the area of independent living. Approximately 100 consumers, attendants and service providers participated in this conference.

Over and above this specific consultation, special attention has been paid to the recommendations made at the recent White House Conference on Handicapped Individuals. Wherever possible, these recommendations are reflected in the proposed regulations.

*Invitation To Comment:* Interested persons are invited to submit written comments, suggestions, and recommendations to be considered prior to the issuance of the final regulations. Comments, suggestions, or recommendations may be sent to the address given at the beginning of these proposed regulations. All comments received on or before the 90th day after publication of these proposed regulations will be considered. All comments submitted in response to this notice will be available for public inspection both during and after the comment period in Room 3323 Mary E. Switzer Building, 330 C Street, S.W., Washington, D.C. 20201 between the

hours of 8:30 a.m. and 4:00 p.m., Monday through Friday of each week except on Federal holidays.

*Authority:* These proposed regulations are issued under the authority of section 12(c) of the Rehabilitation Act of 1973, as amended by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978.

(Catalog of Federal Domestic Assistance Program Numbers 13.624, Rehabilitation Services and Facilities—Basic Support; 13.626, Rehabilitation Services and Facilities—Special Projects; 13.628, Rehabilitation Training)

Dated: June 5, 1979.

Robert R. Humphreys,  
*Commissioner, Rehabilitation Services Administration.*

Approved: September 27, 1979.

Arabella Martinez,  
*Assistant Secretary for Human Development Services.*

Approved: November 6, 1979.

Patricia Roberts Harris,  
*Secretary.*

It is proposed to amend Chapter XIII of Title 45 of the Code of Federal Regulations as follows:

1. Part 1361 is revised to read a follows:

## PART 1361—THE STATE VOCATIONAL REHABILITATION SERVICES PROGRAM

### Subpart A—Definitions

Sec.

1361.1 Terms.

### Subpart B—State Plans for Vocational Rehabilitation Services

#### State Plan Content: Administration

- 1361.2 The State plan: General requirements.
- 1361.3 Review of State plan by Governor.
- 1361.4 State plan approval and disapproval.
- 1361.5 Withholding of funds.
- 1361.6 State agency for administration.
- 1361.7 Organization of the State agency.
- 1361.8 [Reserved]
- 1361.9 State unit director.
- 1361.10 Local administration.
- 1361.11 Methods of administration.
- 1361.12 Shared funding and administration of special joint projects or programs.
- 1361.13 Waiver of Statewideness.
- 1361.14 Cooperative programs involving funds from other public agencies.
- 1361.15 Staffing of the State's vocational rehabilitation program.
- 1361.16 Standards of personnel administration.
- 1361.17 Staff development.
- 1361.18 State studies and evaluations.
- 1361.19 Policy development consultation.
- 1361.20 Cooperation with other public agencies.

Sec.

- 1361.21 Establishment and maintenance of information and referral resources.
- 1361.22 State plan for rehabilitation facilities.
- 1361.23 Utilization of rehabilitation facilities.
- 1361.24 Reports.
- 1361.25 General administrative and fiscal requirements.

#### State Plan Content: Provision and Scope of Service

- 1361.30 Processing referrals and applications.
- 1361.31 Eligibility for vocational rehabilitation services.
- 1361.32 Evaluation of vocational rehabilitation potential: Preliminary diagnostic study.
- 1361.33 Evaluation of vocational rehabilitation potential: Thorough diagnostic study.
- 1361.34 Extended evaluation to determine vocational rehabilitation potential.
- 1361.35 Certification: Eligibility; extended evaluation to determine vocational rehabilitation potential; ineligibility.
- 1361.36 Order of selection for services.
- 1361.37 Services to civil employees of the United States.
- 1361.38 Services to handicapped American Indians.
- 1361.39 The case record for the individual.
- 1361.40 The individualized written rehabilitation program: Procedures.
- 1361.41 The individualized written rehabilitation program: Content.
- 1361.42 Scope of State unit program: Vocational rehabilitation services for individuals.
- 1361.43 Individuals determined to be rehabilitated.
- 1361.44 Authorization of services.
- 1361.45 Standards for facilities and providers of services.
- 1361.46 Rates of payment.
- 1361.47 Participation by handicapped individuals in the costs of vocational rehabilitation services.
- 1361.48 Administrative review of agency action and fair hearing; review by Secretary.
- 1361.49 Protection, use, and release of personal information.
- 1361.50 Scope of State unit program: Management services and supervision for small business enterprises for severely handicapped individuals.
- 1361.51 Scope of State unit program: Establishment of rehabilitation facilities.
- 1361.52 Scope of State unit program: Construction of rehabilitation facilities.
- 1361.53 Scope of State unit program: Facilities and services for groups of handicapped individuals.
- 1361.54 Scope of State unit program: Telecommunications systems.
- 1361.55 Scope of State unit program: Special materials for blind individuals and for deaf individuals.
- 1361.56 Utilization of community resources.
- 1361.57 Utilization of profitmaking organizations for on-the-job training in connection with selected projects.
- 1361.58 Periodic review of extended employment in rehabilitation facilities.

### Subpart C—Financing of State Vocational Rehabilitation Programs

Sec.

#### Federal Financial Participation

- 1361.70 Effects of State rules.
- 1361.71 Vocational rehabilitation services to individuals.
- 1361.72 Management services and supervision for small business enterprises for severely handicapped individuals.
- 1361.73 Establishment of rehabilitation facilities.
- 1361.74 Construction of rehabilitation facilities.
- 1361.75 Other vocational rehabilitation services for the benefit of groups of handicapped individuals.
- 1361.76 State and local funds.
- 1361.77 Shared funding and administration of joint projects or programs.
- 1361.78 Waiver of Statewideness.

#### Allotment and Payment

- 1361.85 Allotment of Federal funds for vocational rehabilitation services.
- 1361.86 Payments for allotments for vocational rehabilitation services.
- 1361.87 Methods of computing and making payments.
- 1361.88 Liquidation of unpaid obligations.
- 1361.89 Refunds.
- 1361.90 Determining to which fiscal year expenditures are chargeable.
- 1361.91 Audits.
- 1361.92 Appeals procedures and expenditures settlement.

### Subpart F—Grants for Innovation and Expansion of Vocational Rehabilitation Services

- 1361.150 Purpose.
- 1361.151 Special project requirements.
- 1361.152 Allotment of Federal funds.
- 1361.153 Payments from allotments.
- 1361.154 Methods of computing and making payments.
- 1361.155 Matching requirements.
- 1361.156 Reports.

### Subpart G—Procedures for Hearings on State Plan Conformity and Compliance

- 1361.170 General provisions.
- 1361.171 How to request a hearing.
- 1361.172 Hearing issues.
- 1361.173 What the purpose of a hearing is.
- 1361.174 Who presides.
- 1361.175 How to be a party or an amicus curiae to a hearing.
- 1361.176 What happens to a petition.
- 1361.177 Rights of parties and amicus curiae.
- 1361.178 Authority of presiding officer.
- 1361.179 Discovery.
- 1361.180 How evidence is handled.
- 1361.181 What happens to unsponsored written material.
- 1361.182 What the record is.
- 1361.183 Posthearing briefs.
- 1361.184 Decisions.
- 1361.185 When a decision is effective.
- 1361.186 How the State may appeal.

*Authority:* Section 12(c) of the Rehabilitation Act of 1973, (29 U.S.C. 711(c)).

## Subpart A—Definitions

### § 1361.1 Terms.

For the purpose of this part—

"Act" means the Rehabilitation Act of 1973 (29 U.S.C. § 701 et seq.) as amended by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 (Pub. L. 95-602).

"Blind" or "blind individual" means a person who is blind within the meaning of the law relating to vocational rehabilitation in each State.

"Commissioner" means the Commissioner of the Rehabilitation Services Administration.

"Construction of a rehabilitation facility" means:

(a) The construction of new buildings, the acquisition of existing buildings, or the expansion, remodeling, alteration or renovation of existing buildings which are to be utilized for rehabilitation facility purposes; or

(b) The acquisition of initial equipment of such new, newly acquired, newly expanded, newly remodeled, newly altered or newly renovated buildings.

"Designated State unit" or "State unit" means either:

(a) The State agency vocational rehabilitation bureau, division, or other organizational unit which is primarily concerned with vocational rehabilitation or vocational and other rehabilitation of handicapped individuals and which is responsible for the administration of the vocational rehabilitation program of the State agency; or

(b) The independent State commission, board, or other agency which has vocational rehabilitation, or vocational and other rehabilitation as its primary function.

"Eligible" or "eligibility," when used in relation to an individual's qualification for vocational rehabilitation services, refers to a certification that:

(a) An individual has a physical or mental disability which for that individual constitutes or results in a substantial handicap to employment; and

(b) Vocational rehabilitation services may reasonably be expected to benefit the individual in terms of employability. "Employability" refers to a determination that the provision of vocational rehabilitation services is likely to enable an individual to enter or retain employment consistent with his capacities and abilities in the competitive labor market; the practice of a profession; self-employment; homemaking; farm or family work (including work for which payment is in-

kind rather than in cash); sheltered employment; homebound employment; or other gainful work.

"Establishment of a rehabilitation facility" means:

(a) The acquisition, expansion, remodeling, or alteration of existing buildings, necessary to adapt them or increase their effectiveness for rehabilitation facility purposes;

(b) The acquisition of initial or additional equipment for these buildings essential for providing vocational rehabilitation services; or

(c) The initial or additional staffing of a rehabilitation facility for a period, in the case of any individual staff person, not longer than 4 years and 3 months.

"Evaluation of vocational rehabilitation potential" means, as appropriate, in each case:

(a) A preliminary diagnostic study to determine that an individual is eligible for vocational rehabilitation services;

(b) A thorough diagnostic study consisting of a comprehensive evaluation of pertinent factors bearing on the individual's handicap to employment and vocational rehabilitation potential, in order to determine which vocational rehabilitation services may be of benefit to the individual in terms of employability;

(c) Any other goods or services necessary to determine the nature of the handicap and whether it may reasonably be expected that the individual can benefit from vocational rehabilitation services in terms of employability;

(d) Referral to other agencies or organizations, when appropriate; and

(e) The provision of vocational rehabilitation services to an individual during an extended evaluation of rehabilitation potential for the purpose of determining whether the individual is a handicapped individual for whom a vocational goal is feasible. "Family member" or "member of the family" means any relative by blood or marriage of a handicapped individual and other individual living in the same household with whom the handicapped individual has a close interpersonal relationship.

"Handicapped individual" except in § 1361.16(c), § 1361.51(e), § 1361.52(g), and § 1362.7, means an individual:

(a) Who has a physical or mental disability which for that individual constitutes or results in a substantial handicap to employment; and

(b) Who can reasonably be expected to benefit in terms of employability from the provision of vocational rehabilitation services, or for whom an extended evaluation of vocational rehabilitation potential is necessary to

determine whether he or she might reasonably be expected to benefit in terms of employability from the provision of vocational rehabilitation services;

"Handicapped individual," for purposes of § 1361.16(c), § 1361.51(e), § 1361.52(g), and § 1362.7, means an individual:

(a) Who has a physical or mental impairment which substantially limits one or more major life activities;

(b) Who has a record of such an impairment; or

(c) Who is regarded as having such an impairment. "Local agency," unless the context clearly indicates differently, means an agency of a unit of general local government or of an Indian tribal organization (or combination of such units or organizations) which has the sole responsibility under an agreement with the State agency to conduct a vocational rehabilitation program in the locality under the supervision of the State agency in accordance with the State plan.

"Nonprofit," refers to a rehabilitation facility, agency, or organization owned and operated by one or more nonprofit corporations or associations, no part of the net earnings of which inures, or may lawfully inure, to the benefit of any private shareholder or individual and the income of which is exempt from taxation under section 501(c)(3) of the Internal Revenue Code of 1954.

"Physical and mental restoration services" means:

(a) Medical or corrective surgical treatment;

(b) Diagnosis and treatment for mental or emotional disorders by a physician skilled in the diagnosis and treatment of such disorders or by a psychologist licensed or certified in accordance with State laws and regulations;

(c) Dentistry;

(d) Nursing services;

(e) Necessary hospitalization (either inpatient or outpatient care) in connection with surgery or treatment and clinic services;

(f) Convalescent or nursing home care;

(g) Drugs and supplies;

(h) Prosthetic, orthotic or other assistive devices essential to obtaining or retaining employment;

(i) Eyeglasses and visual services, including visual training, and the examination and services necessary for the prescription and provision of eyeglasses, contact lenses, microscopic lenses, telescopic lenses, and other special visual aids, prescribed by a physician skilled in diseases of the eye or by an optometrist, whichever the individual may select;

(j) Podiatry;  
 (k) Physical therapy;  
 (l) Occupational therapy;  
 (m) Speech or hearing therapy;  
 (n) Psychological services;  
 (o) Therapeutic recreation services;  
 (p) Medical or medically related social work services;

(q) Treatment of either acute or chronic medical complications and emergencies which are associated with or arise out of the provision of physical and mental restoration services; or which are inherent in the condition under treatment;

(r) Special services for the treatment of individual suffering from end-stage renal disease, including transplantation, dialysis, artificial kidneys, and supplies; and

(s) Other medical or medically related rehabilitation services. "Physical or mental disability" means a physical or mental condition which materially limits, contributes to limiting or, if not corrected, will probably result in limiting an individual's employment activities or vocational functioning.

"Rehabilitation facility" means a facility which is operated for the primary purpose of providing vocational rehabilitation services to handicapped individuals, and which provides singly or in combination one or more of the following services for handicapped individuals:

(a) Vocational rehabilitation services, including under one management, medical, psychiatric, psychological, social, and vocational services;

(b) Testing, fitting, or training in the use of prosthetic and orthotic devices;

(c) Prevocational conditioning or recreational therapy;

(d) Physical and occupational therapy;

(e) Speech and hearing therapy;

(f) Psychological and social services;

(g) Evaluation of rehabilitation

potential;

(h) Personal and work adjustment;

(i) Vocational training with a view toward career advancement (in combination with other rehabilitation services);

(j) Evaluation or control of specific disabilities;

(k) Orientation and mobility services and other adjustment services to blind individuals; and

(l) Transitional or extended employment for those handicapped individuals who cannot be readily absorbed in the competitive labor market.

"Reservation" means a Federal or State Indian reservation, public domain Indian allotment, former Indian reservation in Oklahoma, and land held by incorporated Native groups, regional

corporations and village corporations under the provisions of the Alaska Native Claims Settlement Act.

"Secretary" means the Secretary of Health, Education, and Welfare.

"Severely handicapped individual" means a handicapped individual:

(a) Who has a severe physical or mental disability which seriously limits one or more functional capacities (mobility, communication, self-care, self-direction, work tolerance, or work skills) in terms of employability; and

(b) Whose vocational rehabilitation can be expected to require multiple vocational rehabilitation services over an extended period of time; and

(c) Who has one or more physical or mental disabilities resulting from amputation, arthritis, blindness, cancer, cerebral palsy, cystic fibrosis, deafness, heart disease, hemiplegia, hemophilia, respiratory or pulmonary dysfunction, mental retardation, mental illness, multiple sclerosis, muscular dystrophy, musculo-skeletal disorders, neurological disorders (including stroke and epilepsy), paraplegia, quadriplegia, and other spinal cord conditions, sickle cell anemia, and end-stage renal disease, or another disability or combination of disabilities determined on the basis of an evaluation of rehabilitation potential to cause comparable substantial functional limitation.

"State agency" means the sole State agency designated to administer (or supervise local administration of) the State plan for vocational rehabilitation services. The term includes the State agency for the blind, if designated as the sole State agency with respect to that part of the plan relating to the vocational rehabilitation of blind individuals.

"State plan" means the State plan for vocational rehabilitation services, or the vocational rehabilitation services part of a consolidated rehabilitation plan under § 1361.2(d).

"Substantial handicap to employment" means that a physical or mental disability (in light of attendant medical, psychological, vocational, educational, and other related factors) impedes an individual's occupational performance, by preventing his obtaining, retaining, or preparing for employment consistent with his capacities and abilities.

"Vocational rehabilitation services" when provided to an individual, means those services listed in § 1361.42 of this part.

"Vocational rehabilitation services" when provided for the benefit of groups of individuals, also means:

(a) In the case of any type of small business enterprise operated by

severely handicapped individuals under the supervision of the State unit, management services, and supervision and acquisition of vending facilities or other equipment, and initial stocks and supplies;

(b) The establishment of a rehabilitation facility;

(c) The construction of a rehabilitation facility;

(d) The provision of other facilities and services, including services provided at rehabilitation facilities, which promise to contribute substantially to the rehabilitation of a group of individuals but which are not related directly to the individualized written rehabilitation program of any one handicapped individual;

(e) The use of existing telecommunications systems; and

(f) The use of services providing recorded material for blind persons and captioned films or video cassettes for deaf persons. "Work of art" means those items, including fixtures, that are incorporated in facilities primarily because of their esthetic value. The cost of a work of art which is a fixture is the estimated additional cost of incorporating those special esthetic features which exceed the general requirement of excellence of architecture and design.

"Workshop" means a rehabilitation facility, or that part of a rehabilitation facility, engaged in production or service operation for the primary purpose of providing gainful employment as an interim step in the rehabilitation process for those who cannot be readily absorbed in the competitive labor market or during such time as employment opportunities for them in the competitive labor market do not exist.

## Subpart B—State Plans for Vocational Rehabilitation Services

### State Plan Content: Administration

#### § 1361.2 The State plan: General requirements.

(a) *Purpose.* In order for a State to be eligible for grants from the allotment of funds under Title I of the Act, it must submit an approvable State plan covering a three-year period and meeting Federal requirements. The State plan must provide for financial participation by the State, or if the State chooses, by the State and local agencies jointly, and must provide that it will be in effect in all political subdivisions of the State, except as specifically provided in § 1361.12 (Shared funding and administration of special joint projects or programs) and § 1361.13 (Waiver of Statewideness).

(b) *Form and content.* The State plan must contain, in the form prescribed by the Commissioner, a description of the State's vocational rehabilitation program, the plans and policies to be followed in carrying out the program and other information requested by the Commissioner. The State plan must consist of:

(1) A part providing detailed commitments specified by the Commissioner which must be amended or reaffirmed every three years; and

(2) A part containing a fiscal year programming description, based on the findings of the continuing Statewide studies (§ 1361.18), the annual evaluation of the effectiveness of the State's program (§ 1361.18), and other pertinent reviews and studies. This annual programming description must include:

(i) Changes in policy resulting from the continuing Statewide studies and the annual evaluation of the effectiveness of the program;

(ii) Estimates of the number of handicapped individuals who will be served with funds provided under the Act;

(iii) A description of the methods used to expand and improve services to those individuals who are the most severely handicapped;

(iv) A description of the order of selection (§ 1361.36) of groups of handicapped individuals to whom vocational rehabilitation services will be provided (unless the designated State unit assures that it is serving all eligible handicapped individuals who apply);

(v) A description of financial, personnel, facility, and other resources required to achieve short and long range State goals, and a description of plans for achieving these goals; and

(vi) A statement of the general outcome and service goals to be achieved for handicapped individuals in each priority category within the order of selection in effect in the State and the time within which these goals may be achieved. These goals must include those objectives, established by the State unit and consistent with those set by the Commissioner in instructions concerning the State plan, which are measurable in terms of service expansion or program improvement in specified program areas, and which the State unit plans to achieve during a specified period of time.

(c) *Separate part relating to rehabilitation of the blind.* If a separate State agency for the blind administers or supervises the administration of that part of the State plan relating to the rehabilitation of blind individuals, that part of the State plan must meet all

requirements applicable to a separate State plan.

(d) *Consolidated rehabilitation plan.* The State may choose to submit a consolidated rehabilitation plan which includes the State plan for vocational rehabilitation services and either the State plan for independent living rehabilitation services or the State's plan for its program for persons with developmental disabilities, or both. If the State's plan for persons with developmental disabilities is included, the State planning and advisory council for developmental disabilities and the agency or agencies administering the State's program for persons with developmental disabilities must have concurred in the submission of the consolidated rehabilitation plan. A consolidated rehabilitation plan must comply, and be administered in accordance with, this Act and the Developmental Disabilities Assistance and Bill of Rights Act. The Commissioner may approve the consolidated rehabilitation plan to serve as the substitute for the separate plans which would otherwise be required.

(e) *Amendment.* The State plan must be amended whenever necessary to reflect any material change in any applicable phase of State law, organization, policy, or agency operations which affects the administration of the State plan. The State must submit an amendment before the change is put into effect or shortly after that time.

(f) *Designation of a new State agency or a new State unit.* Before designating a new State agency or a new State unit, the chief administrative officer of the State agency must assure the Commissioner in writing that the vocational rehabilitation program will continue to operate in conformity with the most recent approved State plan, until a new State plan is submitted. The State must submit a new State plan within 90 days following the designation of a new State agency or a new State unit.

(g) *Transition to new State agency or State unit.* When a State agency or a new State unit is designated under paragraph (f) of this section, the State agency must turn over to that agency program and financial records and other pertinent information and resources necessary for the effective conduct of the vocational rehabilitation program.

#### § 1361.3 Review of State plan by Governor.

The State agency must submit the State plan to the State Governor for review and comments. The Governor is given an opportunity to review and

comment on all State plan amendments and long-range program planning projections or other periodic reports, except for periodic statistical or budget and other fiscal reports. The Office of the Governor has 45 days to review this material. The State submits any comments to the Commissioner with the documents.

#### § 1361.4 State plan approval and disapproval.

(a) *State plan approval.* The State plan must be submitted for approval for each three-year period no later than July 1 of the year preceding the first fiscal year for which the State plan is submitted. The Commissioner approves any State plan or amendment meeting the requirements of the Act and of this part.

(b) *State plan disapproval.* The Commissioner does not disapprove any State plan or modification until reasonable effort has been made to resolve any problem and the State has been given reasonable notice and opportunity for a hearing.

#### § 1361.5 Withholding of funds.

(a) *When withheld.* When after a reasonable notice and opportunity for hearing has been given to the State agency, the Commissioner finds that:

(1) The State plan, or the vocational rehabilitation services part of the consolidated rehabilitation plan, has been so changed that it no longer conforms with the requirements of section 101(a) of the Act; or

(2) In the administration of the State plan, or the vocational rehabilitation services part of the consolidated rehabilitation plan, there is a failure to comply substantially with any provision of the approved plan, further payments under section 111 or 121 may be withheld, suspended, or limited as provided by section 101(c) of the Act. The State agency is notified of the decision.

(b) *Judicial review.* The decision to withhold, suspend, or limit payments described in paragraph (a) of this section may be appealed to the U.S. Court of Appeals for the circuit in which the State is located, in accordance with section 101(d) of the Act.

(c) *Informal discussions.* Hearings described in paragraph (a) of this section are not called until after reasonable effort has been made to resolve the questions involved by conference and discussion with State officials.

#### § 1361.6 State agency for administration.

(a) *Designation of sole State agency.* The State plan must designate a State

agency as the sole State agency to administer the State plan, or to supervise its administration in a political subdivision of the State by a sole local agency. In the case of American Samoa, the State plan must designate the Governor; in the case of the Trust Territory of the Pacific Islands, the State plan must designate the High Commissioner.

(b) *Designated State agency.* The State plan must provide that the designated State agency, except for American Samoa, the Trust Territory of the Pacific Islands, and the Northern Mariana Islands, and except for a designated State agency for the blind as specified in paragraph (c) of this section, must be:

(1) A State agency primarily concerned with vocational rehabilitation, or vocational and other rehabilitation of handicapped individuals. This agency must be an independent State commission, board, or other agency, which has as its major function vocational rehabilitation, or vocational and other rehabilitation of handicapped individuals. The agency must have the authority, subject to the supervision of the Office of Governor to define the scope of the vocational rehabilitation program within the provision of State and Federal law, and to direct its administration without external administrative controls; or

(2) The State agency administering or supervising the administration of education or vocational education in the State; or

(3) A State agency which includes at least two other major organizational units, each of which administers one or more of the State's major programs of public education, public health, public welfare, or labor.

(c) *Designated State agency for the blind.* Where the State commission for the blind or other agency which provides assistance or services to the blind is authorized under State law to provide vocational rehabilitation services to blind individuals, this agency may be designated as the sole State agency to administer the part of the plan under which vocational rehabilitation services are provided for the blind or to supervise its administration in a political subdivision of the State by a sole local agency.

(d) *Authority.* The State plan must set forth the authority under State law for the administration or supervision of the administration of the program by the sole State agency and the legal basis for administration by sole local rehabilitation agencies, if applicable.

(e) *Responsibility for administration.* The State plan must assure that all

decisions affecting eligibility for the nature and scope of available vocational rehabilitation services, and the provision of these services are made by the State agency through its designated State unit, or by a designated vocational rehabilitation unit of a local agency under the supervision of the designated State unit. This responsibility may not be delegated to any other agency or individual.

#### § 1361.7 Organization of the State agency.

(a) *Organization.* The State plan must describe the organizational structure of the State agency, including a description of organizational units, the programs and functions assigned to each, and the relationships among these units within the State agency. These descriptions must be accompanied by organizational charts reflecting:

(1) The relationship of the State agency to the Governor and his or her office and to other agencies administering major programs of public education, public health, public welfare, or labor of parallel stature within the State government; and

(2) The internal structure of the State agency and the designated State unit, if applicable. The organizational structure must provide for all the vocational rehabilitation functions for which the State agency is responsible, for clear lines of administrative and supervisory authority, and must be suited to the size of the vocational rehabilitation program and the geographic areas in which the program must operate.

(b) *Designated State unit.* Where the designated State agency is of the type specified in § 1361.6(b) (2) or (3), or § 1361.6(c), the State plan must assure that the agency (or each agency, where two agencies are designated), includes a vocational rehabilitation bureau, division or other organizational unit which:

(1) Is primarily concerned with vocational rehabilitation, or vocational and other rehabilitation of handicapped individuals, and is responsible for the administration of the State agency's vocational rehabilitation program, which includes the determination of eligibility for and the provision of vocational rehabilitation services under the State plan;

(2) Has a full time director in accordance with § 1361.9; and

(3) Has a staff, all or almost all of whom are employed full time on the rehabilitation work of the organizational unit.

(c) *Location of designated State unit.*

(1) The State plan must assure that the designated State unit, specified in paragraph (b) of this section, is located

at an organizational level and has an organizational status within the State agency comparable to that of other organizational units of the agency, or in the case of an agency described in § 1361.6(b)(2), the unit must be so located and have that status, or the director of the unit must be the executive officer of the State agency.

(2) In the case of a State which has not designated a separate State agency for the blind as provided for in § 1361.6 the State may assign responsibility for the part of the plan under which vocational rehabilitation services are provided to blind individuals to one organizational unit of the State agency and may assign responsibility for the rest of the plan to another organizational unit of the agency, with the provisions of paragraphs (b) and (c)(1) of this section applying separately to each of these units.

#### § 1361.8 [Reserved]

#### § 1361.9 State unit director.

The State plan must assure that there will be a full-time director who directs the State agency specified in § 1361.6(b)(1) or the designated State unit specified in § 1361.7(b).

#### § 1361.10 Local administration.

(a) *Scope of written agreement.* The State plan must assure that any local administration of the plan by a sole local agency is based on a written agreement between the local agency and the State agency which:

(1) Indicates that the local agency will conduct a vocational rehabilitation program through its designated unit under the supervision of the designated State unit in accordance with the State plan and in compliance with Statewide standards established by the designated State unit;

(2) Assures that the designated unit of the local agency will be responsible for carrying out the vocational rehabilitation program and will meet the requirements for this unit specified in § 1361.7(b);

(3) Describes the methods to be followed by the designated State unit in its supervision of the local agency's vocational rehabilitation program;

(4) Indicates the basis on which the designated State unit participates financially in its locally administered vocational rehabilitation programs;

(5) Indicates whether the local agency will utilize another local public or nonprofit agency in providing vocational rehabilitation services to handicapped individuals, and the arrangements to be made; and

(6) Assures that the sole local agency will be responsible for the administration of the vocational rehabilitation program and will employ staff for carrying out the vocational rehabilitation program including a full-time director.

(b) *Responsibility of local agency.* If the State plan provides for local administration, it must assure that the sole local agency is responsible through its designated unit for the administration of the program within the political subdivision which it serves. A separate local agency serving the blind may administer that part of the plan relating to vocational rehabilitation of the blind, under the supervision of the designated State unit for the blind.

**§ 1361.11 Methods of administration.**

The State Plan must assure that the State agency employs those methods found necessary by the Commissioner for the proper and efficient administration of the plan, and for carrying out all functions for which the State is responsible under the plan and this part.

**§ 1361.12 Shared funding and administration of special joint projects or programs.**

(a) *Procedural requirements.* In order to carry out a special joint project or program to provide services to handicapped individuals, the State agency must request the Commissioner to authorize it to share funding and administrative responsibility for a joint project or program with another agency or agencies of the State, or with a local agency. The Commissioner approves a request for the shared funding and administration of a special joint project or program which he has determined will more effectively accomplish the purpose of the Act and may also waive the provisions of § 1361.2(a) that the State plan must be in effect in all political subdivisions of the State.

(b) *Scope of written agreement.* The State plan must assure that each special joint project or program is based on a written agreement which:

(1) Describes the nature and scope of the joint project or program, the services to be provided, the respective roles of each participating agency in the provision of services and in their administration, and the share of the costs to be assumed by each;

(2) Specifies the period of the joint project or program, and plans for anticipated continuation;

(3) Provides a budget showing for each fiscal year the financial participation by the State agency and each participating agency;

(4) Provides written assurance that funds will be legally available for purposes of the joint project or program;

(5) Provides that the State agency shall annually evaluate the effectiveness of each project or program with special attention to its vocational rehabilitation objectives;

(6) Assures that the State agency and each participating agency will furnish information and reports required by the Commissioner to determine whether the activities are achieving the purposes of the project or program and warrant continuation; and

(7) Assures that the State agency's portion of the joint project or program will comply with applicable requirements of the Act and this part.

**§ 1361.13 Waiver of statewideness.**

(a) *Purpose of waiver.* If the State agency desires to carry out activities in one or more political subdivisions through local financing in order to promote the vocational rehabilitation of substantially larger numbers of handicapped individuals with particular types of disabilities, the State plan must identify the types of activities to be carried out in this manner.

(b) *Procedural requirements.* The State plan must assure in these cases that the State agency:

(1) Obtains a written description of any activity to be carried out in a particular political subdivision;

(2) Obtains written assurance from the political subdivision that the non-Federal share of funds is available to the State;

(3) Requires that its approval be given to each proposal before the proposal is put into effect in a political subdivision;

(4) Has sole responsibility for administration (or supervisions if the vocational rehabilitation program is administered by local agencies) of the program in a particular local political subdivision in accordance with § 1361.6, except to the extent that funding and administrative responsibility is shared with respect to a joint program under § 1361.12.

(5) Assures that all requirements of the State plan apply to these activities, except the requirement that the program be in effect in all political subdivisions of the State, and except that the provisions of § 1361.78 may be applicable for Federal financial participation in expenditures for carrying out these activities; and

(6) Furnishes other information and reports required by the Commissioner.

**§ 1361.14 Cooperative programs involving funds from other public agencies.**

(a) *Scope of written agreement.* The State plan must assure that, when the State's share of the cost of a cooperative program for providing or administering vocational rehabilitation services is made available in whole or in part by a State or local public agency other than the designated State unit, the cooperative program is based on a written agreement which:

(1) Describes program goals and the activities to be undertaken to achieve these goals;

(2) Assures only individuals eligible for vocational rehabilitation services will be served;

(3) Assures that the vocational rehabilitation services are not services of the cooperating agency to which the handicapped individual would be entitled if he were not an applicant or client of the designated State unit and represent new services or new patterns of services of the cooperating agency.

(4) Provides for an annual budget;

(5) Provides that expenditures for vocational rehabilitation services and the administration of these services will be under the direct control and at the discretion of the designated State unit.

(6) Assures that the costs of administrative activities are not costs which are attributable to the general expense of the State or locality in carrying out the administrative functions of the State or local government;

(b) *Annual review.* The State must review each cooperative program annually to determine its effectiveness and to assure that it is being operated in compliance with the requirements of the written agreement.

**§ 1361.15 Staffing of the State's vocational rehabilitation program.**

(a) *General staffing requirement.* The State plan must assure that staff in sufficient number and with appropriate qualifications is available to carry out all functions required under this part, including program planning and evaluation, staff development, rehabilitation facility development and utilization, medical consultation, and rehabilitation counseling services for severely handicapped individuals.

(b) *Special communication needs staffing.* The State plan must further assure that the designated State unit includes on its staff or makes available personnel able to communicate in the native languages of handicapped individuals with limited English-speaking ability from ethnic groups which represent significant segments of the population of the State. The State plan must assure that the State unit

includes on its staff or arranges to have available individuals able to communicate with handicapped individuals who rely on special modes of communication such as manual communication, tactile, oral, and non-verbal communication devices.

**§ 1361.16 Standards of personnel administration.**

(a) *State merit system administration.* The State plan must assure that methods of personnel administration are established and maintained in conformity with the Standards for a Merit System of Personnel Administration, 5 CFR Part 900 which incorporate the intergovernmental Personnel Act Merit Principles (Pub. L. 91-648), prescribed by the U.S. Office of Personnel Management under Section 208 of the Intergovernmental Personnel Act of 1970, as amended.

(b) *Affirmative action plan for handicapped individuals.* The State plan must also assure that the State agency develops and implements a plan to take affirmative action to employ and advance in employment qualified handicapped individuals. This plan must provide for specific action steps, timetables, and complaint and enforcement procedures necessary to assure affirmative action.

**§ 1361.17 Staff development.**

The State plan must assure that there is a program of staff development for all classes of positions within the State agency which are involved in the administration and operation of the State's vocational rehabilitation program. The staff development program must include, as a minimum:

(a) A systematic determination of training needs and a system for evaluating the effectiveness of the training activities provided;

(b) An orientation program for new staff; and

(c) An operating plan for providing training opportunities for all classes of positions consistent with the determination of training needs.

**§ 1361.18 State studies and evaluations.**

(a) *General provisions.* The State plan must assure that the State conducts continuing Statewide studies of the needs of handicapped individuals within the State, including the State's need for rehabilitation facilities, and the methods by which these needs may be most effectively met.

(b) *Scope of Statewide studies.* The continuing Statewide studies must:

(1) Determine the relative needs for vocational rehabilitation services of different significant segments of the

population of handicapped individuals, with special reference to the need for expanding services to individuals with the most severe handicaps;

(2) Review a broad variety of means and methods to provide, expand, and improve vocational rehabilitation services in order to determine which means and methods are the most effective;

(3) Review the appropriateness of the criteria used by the designated State unit in determining individuals to be ineligible for vocational rehabilitation services;

(4) Determine the capacity and condition of rehabilitation facilities and rehabilitation facility services within the State and identify ways in which the overall effectiveness of rehabilitation facility services within the State might be improved; and

(5) Otherwise contribute to the orderly and effective development of vocational rehabilitation services and rehabilitation facilities within the State.

(c) *Annual evaluation.* The State plan must assure that the State conducts an evaluation of the effectiveness of the State's vocational rehabilitation program in achieving service goals and priorities, as established in the plan. This evaluation must measure the adequacy of State unit performance in providing vocational rehabilitation services especially to those individuals with the most severe handicaps and must be conducted according to the general standards for evaluation developed by the Secretary. Findings derived from the annual evaluation must be reflected in the State plan, its amendments and in the development of plans and policies for the provision of vocational rehabilitation services either directly by the State unit or within rehabilitation facilities.

(d) *Availability of reports.* Reports of the continuing Statewide studies and annual evaluations must be available to the public for review and inspection.

**§ 1361.19 Policy development consultation.**

(a) *General provisions.* The State plan must assure that the designated State unit, or as appropriate, the State unit and any vocational rehabilitation unit of a local agency, takes into account, in connection with matters of general policy development and implementation arising in the administration of the State plan, the views of individuals and groups who are:

(1) Current or former recipients of vocational rehabilitation services, or as appropriate, their parents, guardians, or other representatives;

(2) Providers of vocational rehabilitation services; and

(3) Others active in vocational rehabilitation.

(b) *Public access.* The State plan must further assure that the State unit establishes and maintains a written description of the methods used to obtain and consider views on policy development and implementation. This description must be available to the public for review and inspection, as well as a report of activities which were actually undertaken in this regard during the previous fiscal year.

**§ 1361.20 Cooperation with other public agencies.**

(a) *General provisions.* The State plan must assure that, where appropriate, the State agency enters into cooperative arrangements with, and utilizes the services and facilities of, the State agencies administering the State's social services and financial assistance programs; other programs for handicapped individuals such as the State's developmental disabilities program, veterans' programs, health and mental health programs, education programs, workers' compensation programs, manpower programs and public employment offices; the Social Security Administration; the Office of Workers' Compensation Programs of the Department of Labor, the Veterans' Administration; and other Federal, State and local public agencies providing services related to the rehabilitation of handicapped individuals.

(b) *Coordination with education programs.* The State plan must also assure that specific arrangements are made for the coordination of services for any individual who is eligible for vocational rehabilitation services and is also eligible for services under Part B of the Education of Handicapped Children Act or the Vocational Education Act.

(c) *Coordination with veterans' programs.* The State plan must also assure that there will be maximum coordination and consultation with programs relating to the rehabilitation of disabled veterans.

(d) *Reciprocal referral services with separate agency for the blind.* Where there is a separate State agency for the blind, the two State agencies must establish reciprocal referral services, utilize each other's services and facilities to the extent feasible, jointly plan activities to improve services to the handicapped individuals in the State, and otherwise cooperate to provide more effective services.

**§ 1361.21 Establishment and maintenance of information and referral resources.**

(a) *General provisions.* The State plan must assure the establishment and maintenance of information and referral programs adequate to ensure that handicapped individuals within the State are given accurate information about State vocational rehabilitation services and independent living services, vocational rehabilitation services available from other agencies, organizations, and rehabilitation facilities, and, to the extent possible, other Federal and State services and programs which assist handicapped individuals. The State plan must also assure that the State unit will refer handicapped individuals to other appropriate Federal and State programs which might be of benefit to them and will utilize existing information and referral systems in the State.

(b) *Special information and referral resources.* The State plan must further assure that, to the greatest extent possible, information and referral services utilize interpreters for the deaf, existing telecommunication systems, specialized media systems for handicapped persons and special materials for blind individuals and deaf individuals.

**§ 1361.22 State plan for rehabilitation facilities.**

The State plan must assure that the designated State unit maintains a State rehabilitation facilities plan which includes an inventory of rehabilitation facilities and rehabilitation facility services available within the State and a description of the utilization patterns of the facilities and their utilization potential. The inventory must also include a determination of needs for new, expanded or otherwise modified rehabilitation facilities or rehabilitation facility services and a prioritized list of facility projects necessary to achieve short-range State unit goals. The State plan must also assure that the inventory of facilities is developed with the active participation of a representative group of providers and recipients of vocational rehabilitation services and is available to the public for review and inspection.

**§ 1361.23 Utilization of rehabilitation facilities.**

The State plan must assure that the designated State unit utilizes existing rehabilitation facilities to the maximum extent feasible to provide vocational rehabilitation services to handicapped individuals. The State plan must describe the methods used to ensure appropriate use of these facilities and must provide for appropriate means for

entering into agreements with the operators of these facilities for the provision of vocational rehabilitation services.

**§ 1361.24 Reports.**

The State plan must assure that the State agency submit reports in the form and detail and at the time required by the Commissioner, including reports required under special evaluation studies. The State agency must also comply with any requirements necessary to assure the correctness and verification of reports.

**§ 1361.25 General administrative and fiscal requirements.**

(a) *General provisions.* The State plan must assure that the State agency adopts policies and methods pertinent to the fiscal administration and control of the vocational rehabilitation program, including sources of funds, incurrence and payment of obligations, disbursements, accounting, and auditing. The State plan must assure that the State agency maintains accounts and supporting documents necessary for an accurate and expeditious determination at any time of the status of Federal grants, including the disposition of monies received and the nature and amount of charges claimed against these grants.

(b) *Awards made by State agency.* The State plan must assure that the State agency adopts policies and methods necessary to assure sound administration and control of funds awarded by the State agency to any public or other nonprofit agency or organization to carry out a program of vocational rehabilitation services.

(c) *Applicability of Part 74.* The provisions of Part 74 of this title, establishing uniform administrative requirements and cost principles, apply to all grants made under this part except for the requirement concerning in-kind contributions under Subpart G of Part 74 of this title.

(d) *Applicability of other HEW regulations.* Several other HEW regulations also apply under this part. These include:

- 45 CFR Part 19—Limitations on Payment or Reimbursement for Drugs
- 45 CFR Part 46—Protection of human subjects
- 45 CFR Part 75—Informal grant appeals procedures (Indirect cost rates and other cost allocations)
- 45 CFR Part 80—Nondiscrimination under programs receiving Federal assistance through the Department of Health, Education, and Welfare—Effectuation of Title VI of the Civil Rights Act of 1964
- 45 CFR Part 81—Practice and procedures for hearings under Part 80

45 CFR Part 84—Nondiscrimination on the basis of handicap in Federally assisted programs

45 CFR Part 90—Nondiscrimination on the basis of age in programs or activities receiving Federal financial assistance

(e) *Limitations on joint funding.* The provisions of the Joint Funding Simplification Act (Pub. L. 93-510) and Title V of the Omnibus Territories Bill (Pub. L. 95-134) do not apply to any activities supported under this part.

**State Plan Content: Provision and Scope of Service**

**§ 1361.30 Processing referrals and applications.**

The State plan must assure that the State unit establishes and maintains written standards and procedures to assure expeditious and equitable handling of referrals and applications for vocational rehabilitation services.

**§ 1361.31 Eligibility for vocational services.**

(a) *General provisions.* (1) The State plan must assure that eligibility requirements are applied by the designated State unit without regard to sex, race, age, creed, color, or national origin of the individual applying for service. The State plan must also assure that no group of individuals is excluded or found ineligible solely on the basis of type of disability. With respect to age, the State plan must assure that no upper or lower age limit is established which will, in and of itself, result in a finding of ineligibility for any handicapped individual who otherwise meets the basic eligibility requirements specified in paragraph (b) of this section.

(2) The State plan must assure that no residence requirement, durational or other, is imposed which excludes from services any individual who is present in the State.

(b) *Basic conditions.* The State plan must assure that eligibility is based only upon:

(1) The presence of a physical or mental disability which for the individual constitutes or results in a substantial handicap to employment; and

(2) A reasonable expectation that vocational rehabilitation services may benefit the individual in terms of employability.

(c) *Interim determination of eligibility.* The State plan may provide for vocational rehabilitation services to be initiated for an individual on the basis of an interim determination of eligibility. If the State chooses this approach, it must identify the criteria established for making an interim determination of eligibility, the

procedures to be followed, the services which may be provided, and the period, not to exceed 90 days, during which services may be provided until a final determination of eligibility is made.

**§ 1361.32 Evaluation of vocational rehabilitation potential: Preliminary diagnostic study.**

(a) *Basic conditions.* The State plan must assure that, in order to determine whether any individual is eligible for vocational rehabilitation services, there is a preliminary diagnostic study to determine:

(1) Whether the individual has a physical or mental disability which for that individual constitutes or results in a substantial handicap to employment; and

(2) Whether vocational rehabilitation services may reasonably be expected to benefit the individual in terms of employability, or whether an extended evaluation of vocational rehabilitation potential is necessary to make this determination.

(b) *Scope of diagnostic study.* The State plan must assure that the preliminary diagnostic study includes examinations and diagnostic studies to make the determinations specified in paragraph (a) of this section. In all cases, the evaluation places primary emphasis upon determining the individual's potential for achieving a vocational goal.

(c) *Special evaluations.* The State plan must also assure that the preliminary diagnostic study includes an appraisal of the current general health status of the individual based, to the maximum extent possible, on available medical information. The State plan must further assure that in all cases of mental or emotional disorder, an examination is provided by a physician skilled in the diagnosis and treatment of such disorders, or by a psychologist licensed or certified in accordance with State laws and regulations, in those States where laws and regulations pertaining to the practice of psychology have been established.

**§ 1361.33 Evaluation of vocational rehabilitation potential: Thorough diagnostic study.**

(a) *General provision.* The State plan must assure that, as appropriate in each case, when an individual's eligibility for vocational rehabilitation services has been determined, there will be a thorough diagnostic study to determine the nature and scope of services needed by the individual. This study consists of a comprehensive evaluation of pertinent medical, psychological, vocational, educational, and other factors relating to

the individual's handicap to employment and rehabilitation needs.

(b) *Purpose.* The State plan must assure that the thorough diagnostic study is sufficient in each case to determine which vocational rehabilitation services are needed to attain vocational goals of the handicapped individual. The findings of the study must be recorded in the individual's case record.

(c) *Special evaluation for visually impaired individuals.* The State plan must assure that in all cases of visual impairment, an evaluation of visual loss is provided by a physician skilled in the diseases of the eye or by an optometrist, whichever the individual may select. In the case of blindness, a screening for hearing loss is obtained from a physician skilled in the diseases of the ear or from an audiologist licensed or certified in accordance with State laws or regulations.

(d) *Special evaluation for hearing impaired individuals.* The State plan must assure that in all cases of hearing impairment, an evaluation of the auditory system is obtained from a physician skilled in the diseases of the ear, and based upon this physician's findings, a hearing evaluation may be provided by such a physician or by an audiologist licensed or certified in accordance with State laws or regulations. In the case of deafness, an evaluation of visual capacity is obtained from a physician skilled in the diseases of the eye or from an optometrist, whichever the individual may select.

(e) *Special evaluation for mentally retarded individuals.* The State plan must assure that in all cases of mental retardation, a psychological evaluation is obtained which includes a valid test of intelligence and an assessment of social functioning and educational progress and achievement.

(f) *Scope of thorough diagnostic study.* The State plan must assure that the thorough diagnostic study includes in all cases to the degree needed, an appraisal of the individual's personality, intelligence level, educational achievement, work experience, personal, vocational, and social adjustment, employment opportunities, and other pertinent data helpful in determining the nature and scope of services needed. The State plan must also assure that the thorough diagnostic study includes, as appropriate for each individual, an appraisal of the individual's patterns of work behavior, ability to acquire occupational skill and capacity for successful job performance. Simulated or real work experience may be used to assess the individual's

capacity to perform in a work environment.

**§ 1361.34 Extended evaluation to determine vocational rehabilitation potential.**

(a) *Basic conditions.* The State plan must assure that the furnishing of vocational rehabilitation services under an extended evaluation to determine vocational rehabilitation potential is based only upon:

(1) The presence of a physical or mental disability which for the individual constitutes or results in a substantial handicap to employment; and

(2) An inability to make a determination that vocational rehabilitation services might benefit the individual in terms of employability unless there is an extended evaluation to determine vocational rehabilitation potential.

(b) *Duration and scope of services.* Vocational rehabilitation services necessary for determination of rehabilitation potential, including those provided within a thorough diagnostic study, may be provided to a handicapped individual for a total period no longer than 18 months.

(c) *Other conditions.* (1) The extended evaluation period begins on the date of certification for extended evaluation to determine rehabilitation potential required in § 1361.35(b). Only one 18-month maximum period is permitted during the time that the case is open. If a case has been closed because of a determination that the handicapped individual's needs have changed, the case may be re-opened and a subsequent evaluation of vocational rehabilitation potential may be carried out.

(2) Vocational rehabilitation services, authorized after the expiration of the extended evaluation period, are provided only if the certification of eligibility required in § 1361.35(a) has been executed by an appropriate State unit staff member.

(d) *Review.* The State plan must assure a thorough assessment of the individual's progress as frequently as necessary but at least once every 90 days during the extended evaluation period. This assessment includes periodic reports from the facility, or person providing the services, to determine the results of the services and to determine whether the individual may be determined to be eligible or ineligible.

(e) *Termination.* The State plan must assure that at any time before the end of an 18-month extended evaluation

period, the extended evaluation must be terminated when:

(1) The individual is found eligible for vocational rehabilitation services since there is a reasonable assurance that he or she can be expected to benefit in terms of employability from vocational rehabilitation services; or

(2) The individual is found ineligible for any additional vocational rehabilitation services since it has been determined that he or she cannot be expected to benefit in terms of employability from vocational rehabilitation services. In this case, the procedures described in §1361.40(d) are to be followed and the individual is considered for referral for services under the State's independent living rehabilitation program under Part 1363 of this chapter.

**§ 1361.35 Certification: Eligibility; extended evaluation to determine vocational rehabilitation potential; ineligibility.**

(a) *Certification of eligibility.* The State plan must assure that, before or at the same time that the State unit accepts a handicapped individual for vocational rehabilitation services, there must be a certification that the individual has met the basic eligibility requirements specified in § 1361.31(b). The State plan must further assure that the certification of eligibility is dated and signed by an appropriate State unit staff member.

(b) *Certification for extended evaluation to determine vocational rehabilitation potential.* The State plan must assure that before, and as a basis for providing an extended evaluation to determine vocational rehabilitation potential, there must be a certification that the individual has met the requirements in § 1361.34(a). The State plan must further assure that the certification is dated and signed by an appropriate State unit staff member.

(c) *Certification of ineligibility.* (1) The State plan must assure that, whenever the State unit determines an applicant or recipient of vocational rehabilitation to be ineligible for services, there must be a certification dated and signed by an appropriate designated State unit staff member.

(2) The State plan must further assure that the certification indicates the reasons for the ineligibility determination and is made only after full consultation with the individual or, as appropriate, his or her parent, guardian, or other representative, or after giving a clear opportunity for this consultation. In this case, the designated State unit notifies the individual in writing of the action taken and informs the individual of his or her rights and the

means by which he or she may express and seek remedy for any dissatisfaction, including the procedures for administrative review and fair hearings under § 1361.48. When appropriate, the individual is provided a detailed explanation of the availability of the resources within a client assistance project established under Part 1362 of this chapter, and referral is made to other agencies and facilities, including when appropriate, the State's independent living rehabilitation program under Part 1363 of this chapter.

(d) *Review of ineligibility determination.* The State plan must further assure that when an applicant for vocational rehabilitation services has been determined on the basis of the preliminary diagnostic study to be ineligible because of a finding that he or she cannot be expected to achieve a vocational goal, the ineligibility determination will be reviewed within 12 months. This review need not be conducted in situations where the individual has refused it, the individual is no longer present in the State, his or her whereabouts are unknown, or his or her medical condition is rapidly progressive or terminal.

(e) *Closure without eligibility determination.* The State plan must provide that the State unit may close a case without any determination of eligibility when an applicant is unavailable during an extended period of time to complete an evaluation of vocational rehabilitation potential and the State unit has made repeated effort to contact the individual and to encourage his or her participation.

**§ 1361.36 Order of selection for services.**

(a) *General provisions.* The State plan must show the order to be followed in selecting groups of handicapped individuals to be provided vocational rehabilitation services when these services cannot be provided to all eligible individuals or all individuals determined to be in need of an extended evaluation of vocational rehabilitation potential to determine eligibility.

(b) *Priority for severely handicapped individuals.* The State plan must assure that those groups of individuals with the most severe handicaps are selected for service before any other groups of handicapped individuals.

(c) *Disabled public safety officers.* The State plan must also assure that special consideration will be given to those handicapped individuals whose handicapping condition arose from a disability sustained in the line of duty while performing as public safety officer and the immediate cause of such disability was a criminal act, apparent

criminal act, or a hazardous condition resulting directly from the officer's performance of duties in direct connection with the enforcement, execution, and administration of law or fire prevention, firefighting, or related public safety activities.

**§ 1361.37 Services to civil employees of the United States.**

The State plan must assure that vocational rehabilitation services are available to civil employees of the U.S. Government who are disabled in line of duty, under the same terms and conditions applied to other handicapped individuals.

**§ 1361.38 Services to handicapped American Indians.**

The State plan must assure that vocational rehabilitation services are provided to handicapped American Indians residing in the State to the same extent that these services are provided to other significant groups of the State's handicapped population. The State plan must further assure that the designated State unit continues to provide vocational rehabilitation services to handicapped American Indians on reservations served by a special tribal program under § 1362.45, if the population estimates used for determining the State's allotment include the population of Indians residing on these reservations.

**§ 1361.39 The case record for the individual.**

The State plan must assure that the designated State unit maintains for each applicant for, and recipient of, vocational rehabilitation services a case record which includes, to the extent pertinent, the following information:

(a) Documentation concerning the preliminary diagnostic study supporting the determination of eligibility, the need for an extended evaluation of vocational rehabilitation potential, and, as appropriate, documentation concerning the thorough diagnostic study supporting the nature and scope of vocational rehabilitation services to be provided;

(b) In the case of an individual who has applied for vocational rehabilitation services and has been determined to be ineligible, documentation specifying the reasons for the ineligibility determination, and noting a review of the ineligibility determination carried out not later than twelve months after the determination was made;

(c) Documentation supporting any determination that the handicapped individual is a severely handicapped individual;

(d) Documentation as to periodic assessment of the individual during an

extended evaluation of vocational rehabilitation potential;

(e) An individualized written rehabilitation program as developed under § 1361.40 and § 1361.41 and any amendments to the program;

(f) In the event that physical and mental restoration services are provided, documentation supporting the determination that the clinical status of the handicapped individual is stable or slowly progressive unless the individual is being provided an extended evaluation of rehabilitation potential;

(g) Documentation supporting any decision to provide services to family members;

(h) Documentation relating to the participation by the handicapped individual in the cost of any vocational rehabilitation services if the State elects to continue the provision of services on the financial need of the individual;

(i) Documentation relating to the eligibility of the individual for any similar benefits, and the use of any similar benefits;

(j) Documentation that the individual has been advised of the confidentiality of all information pertaining to his case, and documentation and other material concerning any information released about the handicapped individual with his or her written consent;

(k) Documentation as to the reason for closing the case including the individual's employment status and, if determined to be rehabilitated, the basis on which the employment was determined to be suitable;

(l) Documentation of any plans to provide post-employment services after the employment objective has been achieved, the basis on which these plans were developed, and a description of the services provided and the outcomes achieved;

(m) Documentation concerning any action and decision involving the handicapped individual's request for an administrative review of agency action or fair hearing under § 1361.48; and

(n) In the case of an individual who has been provided vocational rehabilitation services under an individualized written program but who has been determined after the initiation of these services to be no longer capable of achieving a vocational goal, documentation of any reviews of this determination in accordance with § 1361.40(d).

**§ 1361.40 The individualized written rehabilitation program: Procedures.**

(a) *General provisions.* The State plan must assure that an individualized written rehabilitation program is initiated and periodically updated for

each eligible individual and for each individual being provided services under an extended evaluation to determine rehabilitation potential. The State plan must also assure that vocational rehabilitation services are provided in accordance with the written program. The individualized written rehabilitation program must be developed jointly by the designated State unit staff member and the handicapped individual or, as appropriate, his or her parent, guardian or other representative. A copy of the written program, and any amendments, must be provided to the handicapped individual or, as appropriate, his or her parent, guardian, or other representative.

(b) *Initiation of program.* The individualized written rehabilitation program must be initiated after certification of eligibility under § 1361.35(a) or certification for extended evaluation to determine rehabilitation potential under § 1361.35(b).

(c) *Review.* The State plan must assure that the individualized written program will be reviewed as often as necessary but at least on an annual basis. Each handicapped individual, or, as appropriate, his or her parent, guardian or other representative must be given an opportunity to review the program and, if necessary, jointly redevelop and agree by signature to its terms.

(d) *Review of ineligibility determination.* The State plan must assure that if services are to be terminated under a written program because of a determination that the handicapped individual is not capable of achieving a vocational goal and is therefore no longer eligible, or if in the case of a handicapped individual who has been provided services under an extended evaluation of vocational rehabilitation potential, services are to be terminated because of a determination that the individual cannot be determined to be eligible, the following conditions and procedures will be met or carried out.

(1) This decision is made only with the full participation of the individual, or, as appropriate, his or her parent, guardian, or other representative, unless the individual has refused to participate, the individual is no longer present in the State or his or her whereabouts are unknown, or his or her medical condition is rapidly progressive or terminal. When the full participation of the individual or a representative of the individual has been secured in making the decision, the views of the individual are recorded in the individualized written rehabilitation program;

(2) The rationale for the ineligibility decision is recorded as an amendment to the individualized written rehabilitation program certifying that the provision of vocational rehabilitation services has demonstrated that the individual is not capable of achieving a vocational goal, and a certification of ineligibility under § 1361.35(c) is then executed; and

(3) There will be a periodic review, at least annually, of the ineligibility decision in which the individual is given opportunity for full consultation in the reconsideration of the decision, except in situations where a periodic review would be precluded because the individual has refused services or has refused a periodic review, the individual is no longer present in the State, his or her whereabouts are unknown, or his or her medical condition is rapidly progressive or terminal. The first review of the ineligibility decision is initiated by the State unit. Any subsequent reviews, however, are to be undertaken at the request of the individual.

**§ 1361.41 The individualized written rehabilitation program: Content.**

(a) *Scope of content.* The State plan must assure that the individualized written rehabilitation program places primary emphasis on the determination and achievement of a vocational goal, and as appropriate includes, but is not necessarily limited to, statements concerning:

(1) The basis on which the determination of eligibility has been made, or the basis on which a determination has been made that an extended evaluation of vocational rehabilitation potential is necessary to make a determination of eligibility;

(2) The long-range and intermediate rehabilitation objectives established for the individual;

(3) The determination of the specific vocational rehabilitation services to be provided in order to achieve the established rehabilitation objectives;

(4) The projected date for the initiation of each vocational rehabilitation service, and the anticipated duration of each service;

(5) A procedure and schedule for periodic review and evaluation of progress toward achieving rehabilitation objectives based upon objective criteria, and a record of these reviews and evaluations;

(6) The views of the handicapped individual, or, as appropriate, his parent, guardian, or other representative, concerning his goals and objectives and the vocational rehabilitation services being provided;

(7) The terms and conditions for the provision of vocational rehabilitation services including responsibilities of the handicapped individual in implementing the individualized written rehabilitation program, the extent of client participation in the cost of services if any, the extent to which the individual is eligible for similar benefits under any other programs; and the extent to which these similar benefits have been used;

(8) An assurance that the handicapped individual has been informed of his or her rights and the means by which he may express and seek remedy for any dissatisfaction, including the opportunity for an administrative review of agency action or fair hearing under § 1361.48;

(9) Where appropriate, assurance that the handicapped individual has been provided a detailed explanation of the availability of the resources within a client assistance project established under Part 1362 of this chapter;

(10) The basis on which the individual has been determined to be rehabilitated under § 1361.43; and

(11) Any plans for the provision of post-employment services after a suitable employment goal has been achieved and the basis on which such plans are developed.

(b) *Coordination with education agencies.* When services are being provided to a handicapped individual who is also eligible for services under the Education for Handicapped Children Act, the individualized written rehabilitation program is prepared in coordination with the appropriate education agency and includes the content of the individualized education program for that individual.

**§ 1361.42 Scope of State unit program: Vocational rehabilitation services for individuals.**

(a) *Scope of services.* The State plan must assure that, as appropriate to the vocational rehabilitation needs of each individual, the following vocational rehabilitation services are available:

(1) Evaluation of vocational rehabilitation potential, including diagnostic and related services incidental to the determination of eligibility for, and the nature and scope of services to be provided;

(2) Counseling and guidance, including personal adjustment counseling, to maintain a counseling relationship throughout a handicapped individual's program of services, and referral necessary to help handicapped individuals secure needed services from other agencies;

(3) Physical and mental restoration services, necessary to correct or

substantially modify a physical or mental condition which is stable or slowly progressive;

(4) Vocational and other training services, including personal and vocational adjustment, books, tools, and other training materials except that no training or training services in institutions of higher education (universities, colleges, community/junior colleges, vocational schools, technical institutes, or hospital schools of nursing) may be paid for with funds under this part unless maximum efforts have been made by the State unit to secure grant assistance in whole or in part from other sources;

(5) Maintenance, including payments, not exceeding the estimated cost of subsistence and provided at any time after vocational rehabilitation services have begun through the time when post-employment services are being provided. Maintenance covers a handicapped individual's basic living expenses, such as food, shelter, clothing, and other subsistence expenses which are necessary to support and derive the full benefit of the other vocational rehabilitation services being provided;

(6) Transportation, including necessary travel and related expenses including subsistence during travel (or per diem payments in lieu of subsistence) in connection with transporting handicapped individuals and their attendants or escorts for the purpose of supporting and deriving the full benefit of the other vocational rehabilitation services being provided. Transportation may include relocation and moving expenses necessary for achieving a vocational rehabilitation objective;

(7) Services to members of a handicapped individual's family when necessary to the vocational rehabilitation of the handicapped individual;

(8) Interpreter services for the deaf, including tactile interpreting for deaf-blind individuals;

(9) Reader services, rehabilitation teaching services, and orientation and mobility services for the blind;

(10) Telecommunications, sensory and other technological aids and devices;

(11) Recruitment and training services to provide new employment opportunities in the fields of rehabilitation, health, welfare, public safety, law enforcement and other appropriate public service employment;

(12) Placement in suitable employment;

(13) Post-employment services necessary to maintain suitable employment;

(14) Occupational licenses, including any license, permit or other written authority required by a State, city or other governmental unit to be obtained in order to enter an occupation or enter a small business, tools, equipment, initial stocks (including livestock) and supplies; and

(15) Other goods and services which can reasonably be expected to benefit a handicapped individual in terms of employability.

(b) *Written policies.* The State plan must also assure that the State unit establishes and maintains written policies covering the scope and nature of each of the vocational rehabilitation services specified in paragraph (a) of this section, and the conditions, criteria, and procedures under which each service is provided.

(c) *Special requirements.* In the case of telecommunications, sensory, and other technological aids and devices, the written policies must ensure that individualized prescriptions and fittings are performed only by individuals' licensed in accordance with State licensure laws, or by appropriate certified professionals. Any hearing aid recommended on the basis of an evaluation of the auditory system must be fitted in accordance with the specifications of the findings obtained under § 1361.33. Newly developed aids and devices not requiring individualized fittings must meet any engineering and safety standards recognized by the Commissioner.

**§ 1361.43 Individuals determined to be rehabilitated.**

(a) *Minimum requirements.* The State plan must assure that an individual determined to be rehabilitated, must have been, as a minimum:

(1) Determined to be eligible under § 1361.35(a);

(2) Provided and evaluation of vocational rehabilitation potential, and counseling and guidance as essential vocational rehabilitation services;

(3) Provided appropriate and substantial vocational rehabilitation services in accordance with the individualized written rehabilitation program developed under § 1361.40 and § 1361.41; and

(4) Determined to have achieved and maintained a suitable employment goal for at least 60 days.

(b) *Post-employment services.* The State plan must also assure that after an individual has been determined to be rehabilitated, the State unit will provide post-employment services when necessary to assist an individual to maintain suitable employment.

**§ 1361.44 Authorization of services.**

The State plan must assure that written authorization is made, either before or at the same time as the purchase of services. Where a State unit employee is permitted to make oral authorization in an emergency situation, there must be prompt documentation and the authorization must be confirmed in writing and forwarded to the provider of the services.

**§ 1361.45 Standards for facilities and providers of services.**

(a) *General provisions.* The State plan must assure that the designated State unit adopts and maintains written minimum standards for the various types of facilities and providers of services utilized by the State unit in providing vocational rehabilitation services. The State unit must make these standards readily available to unit personnel and to the public.

(b) *Rehabilitation facility standards.* The State unit must establish written standards covering physical plant, equipment, personnel administration and management, and safety for rehabilitation facilities. Insofar as workshops are concerned, the State unit must also establish standards applicable to health conditions, wages, hours, working conditions, and workmen's compensation or liability insurance. These standards must incorporate applicable standards established by the Commissioner and must conform with regulations of the Secretary of Labor relating to occupational safety and health standards for rehabilitation facilities. These standards must also assure that all medical and related health services provided in a rehabilitation facility are prescribed by, or under the formal supervision of persons licensed to prescribe or supervise the provision of these services in the State. State unit standards must assure that any rehabilitation facility utilized in the provision of vocational rehabilitation services fully complies with the requirements of the Architectural Barriers Act of 1968 and, the "American Standards Specification for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped," No. A117.1-1961, as amended, and its implementing standards 41 CFR Part 101-19.6 et seq.

(c) *Rehabilitation facility personnel and providers of services.* The Commissioner exercises no authority concerning the selection, method of selection, tenure of office, or compensation of any individual employed in any facility or personnel utilized in providing services.

**§ 1361.46 Rates of payment.**

The State plan must assure that the State unit establishes and maintains written policies to govern rates of payment for all purchased vocational rehabilitation services. Any vendor providing services authorized by the State unit must agree not to make any charge to or accept any payment from the handicapped individual or his or her family for the service unless the amount of the charge of payment is previously known and, where applicable, approved by the State unit.

**§ 1361.47 Participation by handicapped individuals in the cost of vocational rehabilitation services.**

(a) *Financial need.* (1) There is no Federal requirement that the financial need of a handicapped individual be considered in the provision of any vocational rehabilitation services.

(2) If the State chooses to consider the financial need of handicapped individuals for purposes of determining the extent of their participation in the costs of vocational rehabilitation services, the State unit must maintain written policies covering the determination of financial need, and the State plan must specify the types of vocational rehabilitation services for which the unit has established a financial needs test.

(3) The State plan must assure that no financial needs test is applied as a condition for furnishing the following vocational rehabilitation services:

(i) Evaluation of rehabilitation potential, except for those vocational rehabilitation services other than of a diagnostic nature which are provided under an extended evaluation of rehabilitation potential under § 1361.34;

(ii) Counseling, guidance, and referral services; and

(iii) Placement.

(b) *Consideration of similar benefits.*

(1) The State plan must assure that, in all cases, the State unit gives full consideration to any similar benefits available to a handicapped individual, or to members of a handicapped individual's family, under any program to meet, in whole or in part, the cost of any vocational rehabilitation services except the following:

(i) Evaluation of vocational rehabilitation potential except as provided under paragraph (b)(4) of this section;

(ii) Counseling, guidance and referral;

(iii) Vocational and other training services, including personal and vocational adjustment training, books, tools, and other training materials, which are not provided in institutions of higher education;

(iv) Placement; and

(v) Post-employment services consisting of the services listed under paragraphs (b)(1) (i)-(iv) of this section.

(2) The State plan must assure that the designated State unit gives full consideration to any similar benefits available under any other program to a handicapped individual to meet, in whole or in part, the cost of physical and mental restoration services and maintenance unless it would significantly delay the provision of services to an individual;

(3) The State plan must also assure that when an individual is eligible for similar benefits, these benefits must be utilized insofar as they are adequate and do not interfere with achieving the rehabilitation objective of the individual.

(4) The State plan must also assure that the State unit gives full consideration to any similar benefits available to a handicapped individual who is being provided any of the services under paragraphs (b)(1) and (b)(2) of this section under an extended evaluation of vocational rehabilitation potential.

**§ 1361.48 Administrative review of agency action and fair hearing; review by Secretary.**

(a) *General provisions.* The State plan must assure that an applicant for or a recipient of vocational rehabilitation services under the State plan who is dissatisfied with any action concerning the furnishing or denial of services may file a request for an administrative review and redetermination of that action by the supervisory staff of the designated State unit. The State plan must also provide that an individual who is dissatisfied with the finding of this administrative review, is given an opportunity for a hearing before the State unit director or his designee.

(b) *Review by State unit director.* When a recipient is dissatisfied with any decision or determination made under an individualized written rehabilitation program, the individual, or as appropriate, his or her parent, guardian or other representative, may also request that the decision or determination be reviewed by the State unit director. The final decision made on the basis of the review must be made in writing by the director. The procedures established by the State unit in this regard must provide that the responsibility for making the final decision may not be delegated to any other officer or employee of the designated State unit.

(c) *Review by Secretary or Assistant Secretary.* When a recipient is

dissatisfied with a final decision made by the State unit director concerning a determination or decision made by a State unit representative under an individualized written rehabilitation program under this section, the individual may request the Secretary to review the decision. When this request is made, the Secretary or an Assistant Secretary designated by the Secretary reviews the State unit director's decision and makes recommendations to the director concerning action to be taken to resolve the issue and dispose of the matter. Within 60 days of receiving these recommendations, the director advises the handicapped individual and the Secretary of the final disposition of the matter.

(d) *Informing applicants and recipients.* Each applicant or recipient of vocational rehabilitation services must be informed of the opportunities available under this section.

**§ 1361.49 Protection, use and release of personal information.**

(a) *General provisions.* The State plan must assure that the State agency will adopt and implement policies and procedures to safeguard the confidentiality of all personal information received by the agency, its representatives, or its employees. These policies and procedures must assure that:

- (1) All information is the property of the State agency;
- (2) Specific safeguards protect current and stored personal information;
- (3) All applicants, clients, representatives of applicants or clients, service providers, cooperating agencies, and interested persons are informed of the confidentiality of personal information and the conditions for accessing and releasing this information;
- (4) All applicants or their representatives must be informed about the State unit need to collect personal information and the policies governing its use, including:
  - (i) Identification of the authority under which information is collected;
  - (ii) Explanation of the principal purposes for which the State unit intends to use or release the information;
  - (iii) Explanation of whether the individual's providing the information is mandatory or voluntary and the effects of not providing requested information to the State unit;
  - (iv) Identification of those situations where the State unit requires informed written consent of the individual before information may be released; and
  - (v) Identification of other agencies to which information is routinely released.

(5) All explanations to applicants, clients or their representatives about State policies and procedures affecting personal information must be in the individual's native language or must be through appropriate modes of communication for those individuals who rely on special modes of communicating; and

(6) These policies and procedures must prevail over less stringent State laws and regulations.

(b) *State program use.* All personal information in the possession of the State agency must be used only for purposes directly connected with the administration of the vocational rehabilitation program. In the administration of the program, the State unit may obtain personal information from, and share it, with service providers and cooperating agencies under assurances that the information may not be further divulged, except as provided under paragraphs (c), (d) and (e) of this section;

(c) *Release to involved individuals.* (1) When requested in writing by the involved individual or his or her representative, the State unit must make personal information in the case record accessible to the individual or release it to him or her or a representative in a timely manner. Medical or psychological information which the State unit believes may be harmful to the individual may not be released directly to the individual but must be provided through his or her representative, a physician or a licensed or certified psychologist;

(2) When personal information has been obtained from another individual, agency, or organization covered by other Federal laws and regulations governing the release of information, the information may be released only by the providing individual, agency, or organization.

(d) *Release for audit, evaluation, and research.* Personal information may be released to an organization, agency, or individual engaged in audit, evaluation, or research only for purposes directly connected with the administration of the vocational rehabilitation program and only if the organization, agency, or individual assures that:

- (1) The information will be used only for the purposes for which it is being provided;
- (2) The information will be released only to persons officially connected with the audit, evaluation or research;
- (3) The information will not be released to the involved individual; and
- (4) The final product will not reveal any personal identifying information without the informed written consent of

the involved individual, or his or her representative.

(e) *Release for other program purposes.* (1) The State unit may release to another public agency for other program purposes only that personal information which may be released to the involved individual under paragraph (c) of this section. Additional personal information may be released when the other public agency assures the State unit that the additional information will be used only for the purpose for which it is being provided and will not be further released to the involved individual, except as provided under paragraph (c) of this section.

(2) Personal information must be released, unless expressly prohibited by Federal or State laws or regulations, to any legally constituted public investigative or judicial authority; and

(3) Personal information may also be released in order to protect the individual or others when the individual poses a threat to his or her safety or to the safety of others.

**§ 1361.50 Scope of State unit program: Management services and supervision for small business enterprises for severely handicapped individuals.**

(a) *General provisions.* The State plan may provide for establishing small business enterprises operated by severely handicapped individuals and may also provide for management services and supervision for these enterprises. "Management services and supervision" includes inspection, quality control, consultation, accounting, regulating, in-service training, and related services provided on a systematic basis to support and improve small business enterprises operated by severely handicapped individuals. "Management services and supervision" does not include those services or costs which pertain to the ongoing operation of the individual business enterprise after the initial establishment period.

(b) *Special policies.* If the State plan provides for management services and supervision, it must assure that the State unit maintains:

- (1) A description of the types of small business enterprises to be established;
- (2) A description of the policies governing the acquisition of vending facilities or other equipment and initial stocks (including livestock) and supplies for business enterprises;
- (3) A description of the policies governing the management and supervision of the program;
- (4) A description of how management and supervision will be accomplished either by the State unit or by some other

organization as the nominee of the unit subject to its control; and

(5) An assurance that only severely handicapped individuals will be selected to participate in this supervised program.

(c) *Set-aside funds.* If the State unit chooses to set aside funds from the proceeds of the operation of business enterprises, the State plan must also assure that the State maintains a description of the methods used in setting aside funds, and the purpose for which funds are set aside. Funds may be used only for small business enterprises program purposes and any benefits for operators must be provided on an equitable basis.

**§ 1361.51 Scope of State unit program: Establishment of rehabilitation facilities.**

If the State plan provides for the establishment of public or other nonprofit rehabilitation facilities, it must assure that:

(a) The State unit will determine that the need for the establishment of any rehabilitation facility assisted under this section has been demonstrated in the State's inventory of rehabilitation facilities under § 1361.22;

(b) Any rehabilitation facility to be established will meet the State standards for rehabilitation facilities maintained under § 1361.45;

(c) The primary purpose of any rehabilitation facility to be established is to provide vocational rehabilitation services or transitional or extended employment to handicapped individuals;

(d) Initial or additional staffing assistance will be available only for personnel who are engaged in new or expanded program activities of the rehabilitation facility; and

(e) Any rehabilitation facility established under this part will develop and implement a plan to take affirmative action to employ and advance in employment qualified handicapped individuals which provides for specific action steps, timetables, and complaint and enforcement procedures.

**§ 1361.52 Scope of State unit program: Construction of rehabilitation facilities.**

If the State plan provides for the construction of public or other nonprofit rehabilitation facilities, it must assure that:

(a) The State unit will determine that the need for the construction of any rehabilitation facility assisted under this section has been demonstrated in the State's inventory of rehabilitation facilities under § 1361.22;

(b) Any rehabilitation facility to be constructed will meet the State

standards for rehabilitation facilities maintained under § 1361.45;

(c) The primary purpose of any rehabilitation facility to be constructed under this section is to provide vocational rehabilitation services or transitional or extended employment to handicapped individuals;

(d) The total Federal financial participation in the expenditures for the construction of rehabilitation facilities for a fiscal year will not exceed 10 percent of the State's allotment for that year under section 110 of the Act;

(e) For fiscal year the amount of the State's share of expenditures for vocational rehabilitation services under the plan, other than for the construction of rehabilitation facilities and the establishment of rehabilitation facilities, will be at least equal to the average of its expenditures for the other vocational rehabilitation services for the preceding three fiscal years;

(f) In addition to any other requirement imposed by law, each proposal will be subject to the requirements for the construction of a rehabilitation facility under Part 1362 of this chapter and the condition that the applicant will furnish and comply with all assurances set forth in the application; and

(g) Any rehabilitation facility constructed under this part will develop and implement a plan to take affirmative action to employ and advance in employment qualified handicapped individuals which provides for specific action steps, timetables, and complaint and enforcement procedures.

**§ 1361.53 Scope of State unit program: Facilities and services for groups of handicapped individuals.**

The State plan may provide for facilities and services, including services provided at rehabilitation facilities, which may be expected to contribute substantially to the vocational rehabilitation of a group of individuals, but which are not related directly to the individualized rehabilitation program of any one handicapped individual. If the State plan includes these facilities and services, it must assure that the State unit establishes and maintains written policies covering their provision.

**§ 1361.54 Scope of State unit program: Telecommunications systems.**

The State plan may provide for the use of existing telecommunications systems which have the potential for substantially improving vocational rehabilitation service delivery methods and developing appropriate programming to meet the particular

needs of handicapped individuals, especially those who are homebound, those who live in rural areas, and those who rely on special modes of communication. These telecommunications systems shall include telephone, television, satellite, tactile-vibratory devices, and similar systems, as appropriate. If the State plan includes these systems, it must assure that the State unit establishes and maintains written policies covering their use.

**§ 1361.55 Scope of State unit program; special materials for blind individuals and for deaf individuals.**

The State plan may provide for the use of special services available to provide recorded material for blind individuals, captioned television, films or video cassettes for deaf individuals, tactile materials for deaf-blind individuals, and other special materials providing tactile, vibratory, auditory, and visual readout. If the State plan includes these materials, it must assure that the State unit establishes and maintains written policies covering their provision. These policies must ensure that the special communication services are available in the native languages of handicapped individuals from ethnic groups which represent substantial segments of the population of the State.

**§ 1361.56 Utilization of community resources.**

The State plan must assure that, in providing vocational rehabilitation services, maximum utilization is made of public or other vocational or technical training facilities or other appropriate community resources.

**§ 1361.57 Utilization of profitmaking organizations for on-the-job training in connection with selected projects.**

The State plan must assure that the State unit has the authority to enter into contracts with profitmaking organizations for the purpose of providing on-the-job training and related programs for handicapped individuals under § 1361.43 (projects with industry) or § 1362.117 (business opportunities for handicapped individuals). The State plan must also assure that profitmaking organizations are utilized by the State unit when it has been determined that they are better qualified to provide needed services than nonprofit agencies, organizations, or facilities in the State.

**§ 1361.58 Periodic review of extended employment in rehabilitation facilities.**

The State plan must assure periodic review and reevaluation at least annually, of the status of those handicapped individuals who have been

placed by the State unit in extended employment in rehabilitation facilities, to determine the feasibility of their employment or their training for future employment in the competitive labor market. The State plan must assure that maximum effort is made to place these individuals in competitive employment or training for competitive employment whenever feasible.

### Subpart C—Financing of State Vocational Rehabilitation Programs

#### Federal Financial Participation

##### § 1361.70 Effect of State rules.

Subject to the provisions and limitations of the Act and this part, Federal financial participation is available in expenditures made under the State plan (including the administration thereof) in accordance with applicable State laws, rules, regulations, and standards governing expenditures by State and local agencies.

##### § 1361.71 Vocational rehabilitation services to individuals.

(a) Federal financial participation is available in expenditures made under the State plan for providing an evaluation of vocational rehabilitation potential, and for providing specified vocational rehabilitation services to handicapped individuals as appropriate. Other goods and services not specified under this part and necessary to determine the vocational rehabilitation potential of a handicapped individual or to be of benefit in terms of his or her employability may also be provided. (This may include expenditures for short periods of medical care for acute conditions arising during the course of rehabilitation, which, if not cared for, would constitute a hazard to the evaluation of vocational rehabilitation potential or to the achievement of the rehabilitation objective.)

(b) Federal financial participation may also be available for costs necessary to determine an individual's eligibility to participate in the business opportunity program under § 1362.117 and the costs of native healing practitioners when services are being provided to handicapped American Indians under the State plan.

(c) Federal financial participation is not available in any expenditure made, either directly or indirectly, for the purchase of any land, or for the purchase or erection of any building (except for a shelter under § 1361.72) for any one handicapped individual or for a group of handicapped individuals under § 1361.53.

##### § 1361.72 Management services and supervision for small business enterprises for severely handicapped individuals.

(a) Federal financial participation is available in expenditures made under the State plan for the acquisition of equipment, and initial stocks (including livestock) and supplies for small business enterprises (including vending facilities) for severely handicapped individuals, and management services and supervision provided by the State unit to improve the operation of these small business enterprises (including vending facilities). "Equipment" includes shelters, which are those facilities for a business undertaking which are customarily furnished to the operator of a similar business occupying premises under a short-term lease. Federal financial participation is not available in any expenditure for the purchase of any land, nor for the purchase or erection of any building. This exclusion with respect to buildings does not apply to shelters as described in this paragraph.

(b) Federal financial participation is available for expenditures specified under paragraph (a) of this section, which are made from funds set-aside by the State unit from the proceeds of the operation of small business enterprises for the most severely handicapped individuals under its management and supervision.

##### § 1361.73 Establishment of rehabilitation facilities.

(a) Federal financial participation is available in expenditures made under the State plan for the establishment of public and other nonprofit rehabilitation facilities for the following types of expenditures, except as limited in paragraph (b) of this section:

- (1) Acquisition of existing buildings, and where necessary, the land in connection therewith;
- (2) Remodeling and alteration of existing buildings;
- (3) Expansion of existing buildings;
- (4) Architect's fees;
- (5) Site survey and soil investigation;
- (6) Initial and additional fixed or movable equipment of existing building;
- (7) Initial and additional staffing of rehabilitation facilities; and
- (8) Such other direct expenditures as are appropriate to the establishment project.

(b) Federal financial participation is not available in any expenditure:

- (1) For the acquisition of an existing building when the Federal share of the cost of acquisition of the building under this section is more than \$200,000;

(2) For the rental of land, or rental of buildings in connection with the establishment of rehabilitation facilities;

(3) For the remodeling or alteration of an existing building when the estimated cost of remodeling or alteration exceeds the fair market value of the building prior to its remodeling or alteration;

(4) For the expansion of an existing building which has not been completed in all respects;

(5) For the expansion of an existing building to the extent that the total size of the resultant expanded building, determined in square footage of usable space, will be greater than twice the size of the original existing building; or

(6) For the expansion of an existing building if the method of joining the expanded portion of the existing building indicates that, in effect, a separate structure is involved.

(c) The amount of Federal financial participation in the establishment of a rehabilitation facility, including initial equipment, and initial and additional staffing for a period not longer than 4 years and 3 months, shall be 80 per cent.

(d) Funds made available to a private nonprofit agency for the establishment of a rehabilitation facility must be expended by that agency in accordance with procedures and standards equivalent to those of the State agency in making direct expenditures for similar purposes.

##### § 1361.74 Construction of rehabilitation facilities.

(a) Federal financial participation is available in expenditures made under the State plan for the construction of public or other nonprofit rehabilitation facilities for the following types of expenditures:

(1) Acquisition of land in connection with the construction of a rehabilitation facility;

(2) Acquisition of existing buildings;

(3) Remodeling, alteration or renovation of existing buildings;

(4) Construction of new buildings and expansion of existing buildings when the expansion is extensive enough to be tantamount to new construction;

(5) Architect's fees;

(6) Site survey and soil investigation;

(7) Initial fixed or movable equipment of such new, newly acquired, expanded, remodeled, altered or renovated buildings;

(8) Works of art in an amount not to exceed 1 per cent of the total cost of the project; and

(9) Other direct expenditures appropriate to the construction project, except that Federal financial participation is not available for costs of off-site improvements.

(b) The amount of Federal financial participation in the construction of a rehabilitation facility may not be more than 50 per cent of the total cost of the project.

(c) Funds made available to a private nonprofit agency for the construction of a rehabilitation facility must be expended by that agency in accordance with procedures and standards equivalent to those of the State unit in making direct expenditures for similar purposes.

**§ 1361.75 Other vocational rehabilitation services for the benefit of groups of handicapped individuals.**

Federal financial participation is available in expenditures made under a State plan for the provision of other facilities and services including services provided at rehabilitation facilities which may be expected to contribute substantially to the rehabilitation of a group of handicapped individuals but which are not related directly to the rehabilitation of any one handicapped individual. Federal financial participation is also available in expenditures for the use of existing telecommunications systems and for the use of special materials for blind individuals and deaf individuals.

**§ 1361.76 State and local funds.**

For purpose of this part, "State or local funds" means:

(a) Funds made available by appropriation directly to the State or local agency, funds made available by allotment or transfer from any other unit of State or local government, or expenditures made by any unit of State or local government under a cooperative program under § 1361.14.

(b) Contributions by private organizations or individuals, which are deposited in the account of the State or local agency in accordance with State law, for expenditure by, and at the sole discretion of, the State or local agency. Contributions earmarked for meeting the State's share for providing particular services, for serving certain types of disabilities, for providing services for special groups identified on the basis of criteria which would be acceptable for the earmarking of public funds, or for carrying on types of administrative activities so identified may be considered to be State funds, if permissible under State law, except that Federal financial participation will not be available in expenditures that revert to the donor's use or facility.

(c) Funds set aside pursuant to § 1361.72(b); or

(d) Contributions by private agencies, organizations or individuals deposited

in the account of the State or local agency in accordance with State law, which are earmarked, under a condition imposed by the contributor, for meeting (in whole or in part) the State's share for establishing or constructing a particular rehabilitation facility, if permissible under State law. These funds may be used to earn Federal funds only with respect to expenditures for establishing or constructing the particular rehabilitation facility for which the contributions are earmarked.

**§ 1361.77 Shared funding and administration of joint projects or programs.**

Where the Commissioner approves a request by the State unit to participate in a joint project or program with another agency or agencies of the State, or with a local agency in accordance with § 1361.12, Federal financial participation is available in the State unit share of costs for which there is Federal participation under the Act.

**§ 1361.78 Waiver of Statewide-ness.**

If the approved State plan provides for activities to be carried out in one or more political subdivisions through local financing (§ 1361.13), Federal financial participation is available in expenditures made under the State plan for vocational rehabilitation services and administration in connection with these activities except that funds made available to the State unit by these political subdivisions of the State (including funds contributed to such a subdivision by a private agency, organization or individual) may be earmarked for use within a specific geographical area or for use within a specific facility or for the benefit of a group of individuals with a particular disability. Nothing in this paragraph, however, authorizes the further earmarking of funds for a particular individual or for members of a particular organization, and Federal financial participation is not available in expenditures that revert to the donor's use or facility where the donor is a private agency, organization or individual.

**Allotment and Payment**

**§ 1361.85 Allotment of Federal funds for vocational rehabilitation services.**

(a) The allotment of Federal funds for vocational rehabilitation services for each State is computed in accordance with the requirements of section 110 of the Act.

(b) Where the State plan designates separate agencies to administer (or supervise the administration of) the part of the plan under which vocational

rehabilitation services are provided for the blind, and the rest of the plan, respectively, the division of the State's allotment is a matter for State determination.

(c) The total Federal financial participation in the expenditures for construction for a fiscal year may not exceed 10 per cent of the State's allotment for that year. The amount of the State's share of expenditures for vocational rehabilitation services other than for the establishment of rehabilitation facilities must be at least equal to the average of its expenditures for those other vocational rehabilitation services for the preceding 3 fiscal years.

(d) When a special project has been awarded for the provision of vocational rehabilitation services to handicapped American Indians residing on a reservation under § 1362.45, and the State unit does not intend to continue to provide vocational rehabilitation services to these American Indians, the allotment for the State in which the reservation is located is computed by subtracting from the population under paragraph (a) of this section:

(1) 33 percent of the total number of American Indians residing on the reservation to be served in the first full fiscal year during which the special project is in operation;

(2) 66 percent of such American Indians in the second full fiscal year during which the special project is in operation; and

(3) 100 percent of such American Indians in the third full fiscal year during which the special project is in operation.

**§ 1361.86 Payments from allotments for vocational rehabilitation services.**

(a) Except as provided in § 1361.85(c), the Commissioner pays to each State an amount computed in accordance with the requirements of Section 111 of the Act. The Federal share for each State is 80 per cent (except for the cost of construction of rehabilitation facilities).

(b) Amounts otherwise payable to a State under this section for any fiscal year are reduced by the amount (if any) by which expenditures from non-Federal sources, as specified in § 1361.76 (except for expenditures with respect to which the State is entitled to payments under Subpart F of this part) for that fiscal year under the State's approved plan for vocational rehabilitation services are less than expenditures under the plan for the fiscal year ending June 30, 1972. If a reduction in payments for any fiscal year is required in the case of a State where separate agencies administer (or supervise the administration of) the part of the plan under which vocational

rehabilitation services are provided for blind individuals, and the rest of the plan, respectively, the reduction is made in direct relation to the amount by which expenditures from non-Federal sources under each part of the plan are less than they were under that part of the plan during the fiscal year ending June 30, 1972.

**§ 1361.87 Method of computing and making payments.**

(a) *Estimates.* Before the beginning of each fiscal quarter or other prescribed period, the Commissioner estimates the amount to be paid to each State from its allotment for vocational rehabilitation services under section 110 of the Act, and its allotment for innovation and expansion projects under section 120 of the Act. This estimate is based on records of the State and information furnished by it, and any other investigation found necessary by the Commissioner.

(b) *Payments.* The Commissioner pays, from the allotment available, the amount estimated for the determined period. In making any payment, additions and subtractions are made as necessary in balancing the Federal-State account for any prior period on the basis of the State's accounting. Payments are made prior to audit or settlement by the General Accounting Office through the disbursing facilities of the Treasury Department in installments set by the Commissioner.

**§ 1361.88 Liquidation of unpaid obligations.**

All State agency obligations under the State plan are liquidated within one year of the close of the fiscal year in which the obligation was incurred except for obligations in connection with the establishment or construction of rehabilitation facilities. Where State law permits liquidation of obligations beyond one year of the date of incurrence, the State may request an exemption from this requirement from the Commissioner.

**§ 1361.89 Refunds.**

Any amount refunded or repaid by the State is credited to the Federal account in proportion to the Federal participation in the expenditures by reason of which the refunds or repayments were made. These sums are considered as granted from the State's allotment.

**§ 1361.90 Determining to which fiscal year expenditures are chargeable.**

In determining to which Federal fiscal year expenditures are chargeable, States are governed by the following:

(a) Expenditures are chargeable to a particular fiscal year in accordance with State laws or regulations. In the absence of applicable provisions of State laws or regulations, the actual date of the expenditure is controlling;

(b) In the event that a State's fiscal year does not coincide with the Federal fiscal year, appropriate State laws or regulations governing the recording of expenditures govern;

(c) In those States which appropriate funds for a biennium, the principles provided in State laws, regulations and practices for determining to which year of the biennium an expenditure is charged apply.

**§ 1361.91 Audits.**

(a) Whenever considered necessary and appropriate, the operations of the State agency are audited. These audits are made to determine whether the State agency is being operated in a manner that:

(1) Encourages prudent use of program funds; and

(2) Provides a reasonable degree of assurance that funds are being properly expended for the purpose for which appropriated and provided under the Act and the State plan.

(b) Final determination as to action to be taken as a result of an audit is made by the Commissioner.

**§ 1361.92 Appeals procedures and expenditures settlement.**

The State agency has the right to appeal proposed audit exceptions in which it has not concurred. This appeal must be made within 45 days of receiving the notice and in accordance with the requirements of 45 CFR Part 16. When expenditures have not been accepted by the Commissioner and the State has not made proper restitution, the claim is deducted from subsequent grants made to the State agency.

**Subpart F—Grants for Innovation and Expansion of Vocational Rehabilitation Services**

**§ 1361.150 Purpose.**

Under section 121(a) of the Act, grants may be made for the purpose of paying a portion of the cost of planning, preparing for, and initiating special programs under the State plan in order to expand vocational rehabilitation services, including:

(a) Programs to initiate or expand services to individuals who are the most severely handicapped, or

(b) Special programs to initiate or expand services to classes of handicapped individuals who have unusual and difficult problems in connection with their rehabilitation,

particularly handicapped individuals who are poor and the responsibility for whose treatment, education, and rehabilitation is shared by the designated State unit with other agencies.

**§ 1361.151 Special project requirements.**

(a) All project activities to be performed under this subpart must either be included within the scope of the approved State plan, or the State plan must be amended to include them.

(b) Grants may be made to a State unit or at the option of the State unit to a public or nonprofit organization or agency.

(c) The approval of the appropriate designated State unit must be secured before funds may be granted to any organization or agency other than the designated State unit for the provision of direct services to handicapped individuals or for establishing or maintaining facilities which provide direct services to handicapped individuals.

(d) Written program descriptions of activities to be conducted under grants under this subpart, including a budget, must be submitted in the detail and according to the procedures required by the Commissioner.

(e) Federal financial participation in the cost of any project under this subpart is not available for any period longer than 36 months.

(f) The construction of a rehabilitation facility may not be undertaken unless it has been demonstrated to be essential to carrying out a project for providing services under this subpart. In addition, the need for the facility must have been demonstrated in the State's inventory of rehabilitation facilities under § 1361.23.

(g) Grants may not be made solely for the purpose of planning or determining the feasibility of initiating a vocational rehabilitation service program.

(h) In order to receive assistance, a public or other nonprofit organization or agency, including a public or other nonprofit rehabilitation facility, must develop and implement an affirmative action plan for equal employment opportunity and advancement opportunity for qualified handicapped individuals. The affirmative action plan must provide for specific action steps, timetables, and complaint and enforcement procedures.

**§ 1361.152 Allotment of Federal funds.**

(a) The allotment and any reallocation of Federal funds under this subpart is computed in accordance with the requirements of section 120 of the Act.

(b) If at any time after the start of any fiscal year, or after a review after May 1

of that fiscal year, the Commissioner determines that any amount will not be utilized by a State in carrying out the purpose of this subpart, he makes that amount available to one or more other States which he determines will be able to use additional amounts during the fiscal year. Any amount made available to any State under this paragraph of this section is regarded as an increase in the State's allotment for the year.

(c) Where the State plan designates separate agencies to administer (or supervise the administration of) the part of the plan under which vocational rehabilitation services are provided for the blind, and the rest of the plan, respectively, the division of the State's allotment is a matter for State determination.

(d) Within each State's allotment, the Commissioner may require that up to 50 percent of available funds must be expended in connection with projects which he has first approved. If the Commissioner so requires, he notifies the States of any established program priorities at least 90 days prior to the beginning of each fiscal year.

#### § 1361.153 Payments from allotments.

From the sums allotted under § 1361.152, the Commissioner pays to each State for any project approved under this subpart, an amount up to 90 percent of the costs of the project, (except for a project for construction of a rehabilitation facility where the amount is no more than 50 percent of the total cost of the project) consistent with annual instructions or program guidelines. The amount of Federal financial participation in the costs of construction of a rehabilitation facility is the same percentage specified in § 1361.74(b).

#### § 1361.154 Methods of computing and making payments.

Computing and making payments are done in accordance with § 1361.87. The provisions of § 1361.88 through § 1361.92 also apply.

#### § 1361.155 Matching requirements.

(a) The non-Federal share may be in cash or in-kind and may include funds spent for project purposes by a cooperating public or private nonprofit agency. These cash or in-kind contributions may not be included as a cost in any other federally financed program.

(b) For purposes of this subpart, Federal financial participation will be provided pursuant to the matching and cost-sharing requirements prescribed by Subpart G and Subpart Q of Part 74 of this title.

#### § 1361.156 Reports.

A grantee must submit reports required by the Commissioner and must comply with any requirements necessary to assure the correctness and verification of these reports. These reports include an annual report of program accomplishments reflecting the extent to which programs of vocational rehabilitation services have been initiated or expanded for severely handicapped individuals or for other individuals who have unusual and difficult problems in connection with their rehabilitation.

#### Subpart G—Procedures for Hearings on State Plan Conformity and Compliance

#### § 1361.170 General provisions.

(a) *Scope.* These hearing procedures apply to notice and opportunity for a hearing on:

(1) Disapproval of a State plan or amendment; and

(2) Determination that the State agency has failed in the administration of its approved plan to comply substantially with the provisions of its plan.

(b) *Negotiations.* Nothing in this subpart limits negotiations between the Rehabilitation Services Administration and the State. Negotiations on hearing issues are not part of the hearing and are not subject to the rules in this subpart.

(c) *How to get records.* Papers filed in connection with a hearing may be inspected and copied in the office of the Rehabilitation Services Administration Hearing Clerk. Individuals may direct inquiries to the Rehabilitation Services Administration Hearing Clerk, Department of Health, Education, and Welfare, 330 C Street SW., Washington, D.C. 20201.

(d) *How to file and serve papers.* (1) Anyone who wishes to submit papers for the docket shall file with the Rehabilitation Services Administration Hearing Clerk an original and two copies except that only originals of exhibits and testimony transcripts need be filed.

(2) Anyone who wishes papers to be part of the record shall also serve copies on the parties by personal delivery or by mail, and file proof of this service with the Rehabilitation Services Administration Hearing Clerk. Service on a party's designated attorney is the same as service on the party.

(e) *When rules are suspended.* After notifying the parties, the Commissioner or the individual he designates as presiding officer may modify or waive any rule in this subpart if it is decided

that the action is equitable and will not unduly prejudice the rights of any party.

#### § 1361.171 How to request a hearing.

(a) *Time limit.* A State agency has 60 days from receipt of the Commissioner's written notice of proposed disapproval of a State plan or plan amendment, or intended compliance action to request a hearing. The agency shall make its request in writing to the Commissioner.

(b) *What happens if a State agency does not request a hearing.* If the State agency does not request a hearing within the time allowed by paragraph (a) of this section, the Commissioner makes a final determination and notifies the agency by letter of his decision to withhold either all further payments under the plan or only payments for those portions of the plan affected.

(c) *How request is acknowledged.* (1) *Notice of hearing.* Within 30 days of receiving a hearing request, the Commissioner notifies the State agency in writing of the date, time, and place of the hearing and of the issues to be considered. The Commissioner publishes the hearing notice in the *Federal Register*. The hearing will be held in a building accessible to physically handicapped persons.

(2) *When hearing is held.* The date set for a hearing is 20 to 60 days from the date the State agency receives the hearing notice. However, the State agency and the Commissioner may agree in writing to a different date.

#### § 1361.172 Hearing issues.

(a) *What the hearing issues are.* (1) *General rule.* The issues at a hearing are those included in the Commissioner's notice to the State agency.

(2) *How the Commissioner may add issues.* At least 20 days before a hearing, the Commissioner notifies the agency by letter of any additional issues to be considered. The Commissioner publishes this notice in the *Federal Register*. If the agency does not receive its notice of additional issues in the required time, any party may request that the Commissioner postpone the hearing. If a request is made, the Commissioner sets a new hearing date that is 20 to 60 days from the date the agency received the notice of additional issues.

(3) *How actions by the State may cause the Commissioner to add, modify, or remove issues.* The Commissioner may add, modify, or remove issues if the State agency:

(i) Conforms its plans to Federal requirements; or

(ii) Changes its practices or organization to comply with its approved State plan.

(4) *What happens if State action causes the Commissioner to add, modify, or remove issues.* (i) If the Commissioner specifies new or modified issues, the hearing proceeds on these issues.

(ii) (A) If the Commissioner removes an issue, the hearing proceeds on the remaining issues. If the Commissioner removes all issues, the Commissioner terminates the hearing proceedings. The Commissioner may terminate hearing proceedings or remove issues before, during, or after the hearing.

(B) Before removing an issue, the Commissioner notifies the parties other than the Rehabilitation Services Administration and the State agency of the issue and the reasons for removing the issue. Within 20 days of the date of this notice, the parties may submit comments in writing on the merits of the proposed removal. The Commissioner considers these comments and they become part of the record.

**§ 1361.173 What the purpose of a hearing is.**

The purpose of the hearing is to receive factual evidence and testimony, including expert opinion testimony, related to the issues. The presiding officer may not allow argument as evidence.

**§ 1361.174 Who presides.**

The presiding officer at a hearing is the Commissioner or a person he designates. If the Commissioner designates a presiding officer, the Commissioner sends copies of the designation notice to the parties.

**§ 1361.175 How to be a party or an amicus curiae to a hearing.**

(a) *Rehabilitation Services Administration and State agency.* The Rehabilitation Services Administration and the State agency are parties to a hearing without having to request participation.

(b) *Other parties or amicus curiae.* An individual or group wishing to be a party or amicus curiae to a hearing may file a petition with the Rehabilitation Services Administration Hearing Clerk no more than 15 days following publication of the hearing notice in the *Federal Register*. A petitioner who wishes to be a party must also provide a copy of the petition to each party of record at that time.

(c) *What must be in a petition.* A petition must state concisely: (1) Whether the petitioner wishes to be a party or an amicus curiae;

(2) The petitioner's interest in the proceedings;

(3) Who will appear for the petitioner;

(4) The issues on which the petitioner wishes to participate; and

(5) Whether the petitioner intends to present witnesses, if the petitioner wishes to be a party.

**§ 1361.176 What happens to a petition.**

(a) *Petitions to be a party.* (1) The presiding officer determines if the issues to be considered at the hearing have caused the petitioner injury and if the petitioner's interest is within the zone of interest protected by the governing Federal statute. The presiding officer permits or denies the petition accordingly and promptly sends the petitioner a written notice of the decision. If the presiding officer denies the petition, the officer states the reasons in the notice.

(2) Before making this determination, the presiding officer will allow any party to file comments on the petition to be a party. Any party who wishes to file comments must do so within 5 days of receiving the petition.

(3) If the presiding officer decides that parties by petition have common interest, the officer may require that they designate a single representative, or may recognize two or more of these parties to represent all of them.

(b) *Petitions to be amicus curiae.* The presiding officer determines if the petitioner has a legitimate interest in the proceedings and may contribute materially to the proper settlement of the issues. The officer also determines if the petitioner's participation would unduly delay the proceedings. The presiding officer permits or denies the petition accordingly and promptly sends the petitioner a written notice of the decision. If the presiding officer denies the petition, the officer states the reason in this notice.

**§ 1361.177 Rights of parties and amicus curiae.**

(a) *What rights parties have.* A party may:

(1) Appear by counsel or other authorized representative in all hearing proceedings;

(2) Participate in any prehearing conference held by the presiding officer;

(3) Stipulate facts that, if uncontested, become part of the record;

(4) Make opening statements;

(5) Present relevant evidence;

(6) Present witnesses who must be available for cross-examination;

(7) Present oral arguments at the hearing; and

(8) Submit written briefs, proposed findings of fact, and proposed conclusions of law, after the hearing.

(b) *What rights an amicus curiae has.* An amicus curiae may:

(1) Present an oral statement at the hearing at the time specified by the presiding officer;

(2) Submit a written statement of position to the presiding officer before the hearing begins; and

(3) Submit a brief or written statement at the same time the parties submit briefs

If the amicus curiae submits a written statement or brief, the amicus shall serve a copy on each party.

**§ 1361.178 Authority of presiding officer.**

(a) *General rule.* The presiding officer conducts a fair hearing, avoids delay, maintains order and makes a record of the proceedings. In so doing, he or she has authority that includes:

(1) Regulating the course of the hearing;

(2) Regulating the participation and conduct of parties, amici curiae, and others at the hearing;

(3) Ruling on procedural matters and, if necessary, issuing protective orders or other relief to a party against whom discovery is sought;

(4) Taking any action authorized by the rules in this subpart;

(5) Making a final decision, if the Commissioner is the presiding officer;

(6) Administering oaths and affirmations;

(7) Examining witnesses;

(8) Receiving or excluding evidence; and

(9) Ruling on or limiting evidence or discovery.

(b) *What the presiding officer may not do.* The presiding officer may not compel by subpoena the production of witnesses, papers, or other evidence.

(c) *When the presiding officer's authority is limited.* If the presiding officer is not the Commissioner, the officer certifies the entire record to the Commissioner, including a recommended decision on each issue in the hearing, but may not:

(1) Make a final decision; or

(2) Recommend reduction or withholding of payments.

**§ 1361.179 Discovery.**

A party has the right to conduct discovery against other parties. These discovery proceedings are subject to Rules 26-37, Federal Rules of Civil Procedure. The presiding officer promptly rules on any written objection to discovery and may restrict or control discovery to prevent undue delay in the hearing. If a party fails to respond to discovery procedures, the presiding officer may issue any order and impose any sanction (other than contempt orders) authorized by Rule 37 of the Federal Rules of Civil Procedure.

**§ 1361.180 How evidence is handled.**

(a) *Testimony.* Witnesses, under oath or affirmation, give oral testimony at a hearing. Witnesses must be available at a hearing for cross-examination by the parties.

(b) *Rules of evidence.* Technical rules of evidence do not apply to hearings described in this subpart. The presiding officer applies any rules or principles necessary to ensure disclosure of the most credible evidence available and to subject testimony to cross-examination. Cross-examination may be on any material matter, regardless of the scope of direct examination.

**§ 1361.181 What happens to unsponsored written material.**

Letters and other written material regarding matters at issue, if not submitted specifically on behalf of a party, become part of the correspondence section of the docket. This material is not part of the evidence or the record.

**§ 1361.182 What the record is.**

(a) *Official transcript.* The Rehabilitation Services Administration designates the official reporter for a hearing. The Rehabilitation Services Administration Hearing Clerk has the official transcript of testimony, and other material submitted with the official transcript. The parties and the public may obtain transcripts of testimony from the official reporter at rates that do not exceed the maximum fixed by contract between the reporter and the Rehabilitation Services Administration. Upon notice to the parties, the presiding officer may authorize transcript corrections that involve matters of substance.

(b) *Record.* The record for the hearing decision is the transcript of testimony, exhibits, and all other papers and requests filed in the proceedings except for the correspondence section of the docket. The record includes rulings and any recommended decision.

**§ 1361.183 Posthearing briefs.**

The presiding officer fixes the time for filing posthearing briefs. They may contain proposed findings of fact and conclusions of law. The presiding officer may permit filing of reply briefs.

**§ 1361.184 Decisions.**

(a) *If the Commissioner is the presiding officer.* If the Commissioner is the presiding officer, the Commissioner issues a final decision 60 days after the time allowed for filing posthearing or reply briefs ends. The Commissioner provides copies of the decision to all parties and any amici curiae.

(b) *If the Commissioner appoints a presiding officer.* (1) No later than 30 days after the time for filing post-hearings or reply briefs ends, the presiding officer certifies the entire record, including his or her recommended decision, to the Commissioner.

(2) The Commissioner provides a copy of the recommended decision to the parties and any amici curiae. Within 20 days, a party may file with the Commissioner, exceptions to the recommended decision. The party must file a supporting brief or statement with the exception.

(3) The Commissioner reviews the record, and, within 60 days of the date of receipt of the presiding officer's recommended decision, the Commissioner issues a final decision. The Commissioner provides copies of the decision to all parties and any amici curiae.

(c) If the Commissioner decides, after a hearing, that the plan or plan amendment is not approvable, or substantial noncompliance exists, the final decision indicates whether RSA will withhold all further payments or only payments under portions of the plan affected.

**§ 1361.185 When a decision is effective.**

(a) The Commissioner's decision, which constitutes "final agency action" within the meaning of 5 U.S.C. 704 and a final determination under section 101(b) and (c)(1) of the Act, specifies the effective date for RSA's reduction or withholding of the State's grant. This effective date may not be earlier than the date of the Commissioner's decision or later than the first day of the next calendar quarter.

(b) The decision remains in effect unless reversed or stayed on judicial appeal, or until the plan or State agency administration of the plan meets all Federal requirements, except that the Commissioner may modify or set aside his or her decision before the record of the proceedings under this subpart is filed in court.

**§ 1361.186 How the State may appeal.**

A State may appeal to the U.S. Court of Appeals which has jurisdiction in the State, the final decision of the Commissioner disapproving the State plan or plan amendment or finding noncompliance. The State must file the appeal within 30 days after receiving the Commissioner's final decision.

2. Part 1362 is revised to read as follows:

**PART 1362—PROJECT GRANTS AND OTHER ASSISTANCE IN VOCATIONAL REHABILITATION AND INDEPENDENT LIVING REHABILITATION.****Subpart A—General Provision**

- Sec.
- 1362.1 Terms
- 1362.2 Application content and procedures for submitting applications.
- 1362.3 State unit review and approval of applications.
- 1362.4 Project period.
- 1362.5 Matching requirements.
- 1362.6 Services to handicapped individuals.
- 1362.7 Affirmative action plans.
- 1362.8 Special requirements for projects which involve construction.
- 1362.9 Wage and hour standards for workshops.
- 1362.10 Advisory committee membership.
- 1362.11 Special requirements affecting handicapped individuals with communication problems.
- 1362.12 Accessibility to project activities by handicapped persons.
- 1362.13 Protection, use, and release of personal information.
- 1362.14 Collection of data from State agencies.
- 1362.15 Limitations on joint funding of projects.
- 1362.16 Other HEW regulations which apply.

**Subpart B—Projects for the Provision of Vocational Rehabilitation Services**

- 1362.40 Special projects and demonstrations; improved services to severely handicapped individuals.
- 1362.41 Special projects and demonstrations; new approaches to service delivery.
- 1362.42 Grants for services for handicapped migratory agricultural workers or seasonal farmworkers.
- 1362.43 Projects with industry.
- 1362.44 Projects for vocational training services.
- 1362.45 Projects for American Indian vocational rehabilitation services.

**Subpart C—Assistance for Rehabilitation Facilities**

- 1362.50 Project development grants.
- 1362.51 Grants for construction of rehabilitation facilities.
- 1362.52 Rehabilitation facility staffing grants.
- 1362.53 Rehabilitation facility improvement grants.
- 1362.54 Grants for establishing or operating comprehensive rehabilitation centers.
- 1362.55 Loan guarantees for rehabilitation facilities.

**Subpart D [Reserved]****Subpart E—Rehabilitation Training**

- 1362.70 Rehabilitation long-term training.
- 1362.71 State unit for vocational rehabilitation in-service training.
- 1362.72 Rehabilitation continuing education programs.

## Sec.

- 1362.73 Rehabilitation short-term training.  
1362.74 Rehabilitation research fellowships.

**Subpart F—Helen Keller National Center for Deaf-Blind Youths and Adults**

- 1362.80 Terms.  
1362.81 Purpose.  
1362.82 Scope of activity.  
1362.83 Agreement.  
1362.84 Selection of grantee.

**Subpart G—(Reserved)****Subpart H—Projects and Other Assistance for the Provision of Special Rehabilitation Services**

- 1362.100 Projects for the establishment and operation of centers for independent living.  
1362.101 Grants for independent living rehabilitation services for older blind individuals.  
1362.102 Grants for the protection and advocacy of the rights of severely handicapped individuals.  
1362.103 Client Assistance projects.  
1362.104 Project grants for interpreter services for deaf individuals.  
1362.105 Special projects for the training of interpreters for the deaf.  
1362.106 Projects for reading services for blind individuals.  
1362.107 Business opportunities for handicapped individuals.  
1362.108 Special projects and demonstrations for making recreation activities accessible to handicapped individuals.  
1362.109 Project grants for the initiation of special recreation programs for handicapped individuals.  
1362.110 Technical assistance.

Authority: Section 12(c) of the Rehabilitation Act of 1973, (29 U.S.C. 711(c)).

**Subpart A—General Provisions****§ 1362.1 Terms.**

(a) The following terms were defined in § 1361.1 of this chapter:

- "Act"
- "Blind"
- "Commissioner"
- "Construction of a rehabilitation facility"
- "Designated State unit"
- "Employability"
- "Establishment of a rehabilitation facility"
- "Handicapped individual"
- "Local agency"
- "Maintenance"
- "Nonprofit"
- "Physical or mental disability"
- "Rehabilitation facility"
- "Secretary"
- "Severely handicapped individual"
- "State"
- "State agency"
- "State plan"
- "State unit"
- "vocational rehabilitation services"
- "Works of art"
- "Workshop"

The term "independent living rehabilitation services" or "independent living services" has the same meaning as § 1363.1 of this chapter.

**§ 1362.2 Application content and procedures for submitting applications.**

All applications for Federal support under this part must be submitted in the detail, and in accordance with procedures, required by the Commissioner. Where there is a competition for grant funds, the Commissioner publishes a Notice in the *Federal Register* announcing the competition for each program. The Commissioner publishes this Notice at least 60 days before the deadline date for submittal of applications.

**§ 1362.3 State unit review and approval of applications.**

(a) The Commissioner gives the appropriate State unit an opportunity to review and comment on applications and other requests for Federal support submitted from within the State which it serves.

(b) The applicant must secure the approval of the appropriate State unit for any application which significantly involves providing direct vocational rehabilitation services to handicapped individuals. This approval need not be secured if the scope of the proposed project extends beyond a single State.

**§ 1362.4 Project period.**

(a) A project under this part may generally be initially approved for a project period of up to 5 years.

(b) Any extension of the project beyond a previously approved project period which involves additional Federal funds may also be approved for a period of up to 5 years. An extension may be approved only after a competitive review of the application on the same terms and conditions placed on new applications.

(c) Where different project period limits are in effect, they are specified in the individual program regulations in this part.

**§ 1362.5 Matching requirements.**

Federal assistance under this part may generally pay only a part of the costs of project activities to be carried out. The Federal share may generally not be more than 90 percent of the total cost of the project. Where different Federal matching requirements are in effect, they are specified in the individual program regulations in this part.

**§ 1362.6 Services to handicapped individuals**

Vocational rehabilitation services or independent living services provided in projects assisted under this part must be provided in the same manner as services provided under the State plan for vocational rehabilitation services under Part 1361 of this chapter or the State plan for independent living rehabilitation services under Part 1363 of this chapter.

**§ 1362.7 Affirmative action plans.**

A recipient of Federal assistance must develop and implement an affirmative action plan to employ and advance in employment qualified handicapped individuals in accordance with the requirements of 45 CFR Part 84.

**§ 1362.8 Special requirements for projects which involve construction.**

(a) A project which involves construction (the construction of new buildings and the acquisition, expansion, remodeling, alteration, and renovation of existing buildings) under this part must meet the following requirements:

(1) The grantee must have or must get a fee simple or other interest in the site, including right of access, sufficient to insure the grantee's undisturbed use or possession of the facilities for not less than the useful life of the facilities or 50 years, whichever is longer;

(2) The grantee must insure that sufficient funds are available to meet any non-Federal share of the cost of construction of the facility;

(3) The grantee must complete the project within a reasonable time;

(4) The grantee must insure that the construction is:

- (i) Functional;
- (ii) Economical;
- (iii) Representative of excellence of architecture and design; and

(iv) Not elaborate in design or extravagant in the use of materials, compared with facilities of a similar type constructed in the State or other applicable geographic area;

(5) The grantee must comply with the requirements of the Architectural Barriers Act of 1968 (Pub L. 90-480), including "American National Standard Institute Specifications for Making Buildings and Facilities Accessible to, and Usable by, the Physically Handicapped," No. A117.1-1961, or other standards prescribed by the Administrator of General Services (41 CFR 101-19.6 et seq.) and other supplemental standards prescribed by the Commissioner and where not consistent, the more stringent standard will prevail;

(6) Plans and specifications must be approved by the Architectural and Transportation Barriers Compliance Board;

(7) The grantee must comply with the provisions of the Davis-Bacon Act (40 U.S.C. 276a et seq.) and with the standards prescribed by Subpart P of Part 74 of this title;

(8) The grantee must assess the impact of the project on the quality of the environment in accordance with section 102(2)(i) of the National Environmental Policy Act of 1969 and Executive Order No. 11514 (34 FR 4247);

(9) The grantee must fully consider the project's relationship to and probably effect on any district, site, building, structure, or object which is included in the National Register of Historic Preservation of the National Park Service;

(10) The grantee must observe nationally recognized safety and health standards and codes, including:

(i) Current National Fire Protection Association standards;

(ii) Standards under the Occupational Safety and Health Act of 1970 (Pub. L. 91-576); and

(iii) State and local codes, to the extent that they are more stringent;

(11) The grantee must evaluate flood hazards in connection with the construction and, as far as practicable, shall avoid uneconomic, hazardous, or unnecessary use of flood plains in accordance with the provisions of Executive Order No. 11296;

(12) The grantee is subject to the regulations on relocation assistance and real property acquisition in Part 15 of this title;

(13) The grantee must ensure that the facility will be used as a public or nonprofit facility for at least 20 years after completion of the project;

(14) The grantee must assure that Federal funds are used only for the purposes for which the funds were provided; and

(15) The grantee must operate and maintain the facility in accordance with applicable Federal, State, and local requirements for the maintenance and operation of facilities.

(b) The construction of a rehabilitation facility may include the construction of residential accommodations for use in connection with the rehabilitation of handicapped individuals if it is necessary to the effective operation of the facility.

(c) Federal financial participation is not available for the costs of offsite improvements or for the construction of any facility used for religious worship or sectarian activity.

#### § 1362.9 Wage and hour standards for workshops.

All applicable Federal and State wage and hour standards must be observed in projects carried out in workshops.

#### § 1362.10 Advisory committee membership.

When an advisory committee is established under a project, its membership must include representatives of handicapped individuals and other individuals to be assisted within the project, providers of services, and other appropriate individuals.

#### § 1362.11 Special requirements affecting handicapped individuals with communication problems.

Each project must make necessary arrangements to ensure that personnel are available who are able to communicate with handicapped individuals who rely on special modes of communication, such as manual communication or nonverbal communication devices. Any project must also make necessary arrangements to ensure that personnel are available who are able to communicate in the native language of handicapped individuals with limited English-speaking ability from ethnic groups which represent substantial segments of the population of the communities in which the project activities are being carried out.

#### § 1362.12 Accessibility to project activities by handicapped persons.

Any facility or other setting to be used for carrying out any activities assisted under this part must be accessible to, and usable by, handicapped individuals in accordance with the Architectural Barriers Act of 1968, as amended, and its implementing standards, 41 CFR Part 101-19.6 et seq. In addition, project activities must be conducted in settings which are free from architectural, communication and other barriers to the participation of handicapped persons in accordance with the requirements of 45 CFR Part 84.

#### § 1362.13 Protection, use, and release of personal information.

(a) All personal information about individuals served by any project under this part, including lists of names, addressees, photographs, and records of evaluation, must be held confidential.

(b) The use of information and records concerning individuals must be limited only to purposes directly connected with the project, including project evaluation activities. This information may not be disclosed, directly or indirectly, other

than in the administration of the project unless the consent of the agency providing the information and the individual to whom the information applies, or his representative, have been obtained in writing. The Commissioner and other Federal or State officials responsible for enforcing legal requirements have access to this information without written consent being obtained. The final product of the project may not reveal any personal identifying information without written consent of the individual or his or her representative.

#### § 1362.14 Collection of data from State agencies.

When the collection of data is necessary from either handicapped individuals being served by two or more State agencies or from employees of two or more of these agencies, the project director must submit requests for the data to appropriate representatives of the affected agencies, as determined by the Commissioner. This requirement also applies to employed project staff and individuals enrolled in courses of study supported under this part.

#### § 1362.15 Limitations on joint funding of projects.

The provisions of the Joint Funding Simplification Act (Pub. L. 93-510) and Title V of the Omnibus Territories Bill (Pub. L. 95-134) do not apply to any projects or other activities supported under this part.

#### § 1362.16 Other HEW regulations which apply.

Several other HEW regulations apply to grants and, in some instances, other awards under this part. These include:

- 45 CFR Part 16—Department grant appeals process
- 45 CFR Part 46—Protection of human subjects
- 45 CFR Part 74—Administration of grants (except for business opportunities for handicapped individuals under § 1362.117)
- 45 CFR Part 75—Informal grant appeals procedures (Indirect cost rates and other cost allocations)
- 45 CFR Part 80—Nondiscrimination under programs receiving Federal assistance through the Department of Health, Education, and Welfare—Effectuation of Title VI of the Civil Rights Act of 1964
- 45 CFR Part 81—Practice and procedures for hearings under Part 80
- 45 CFR Part 84—Nondiscrimination on the basis of handicap in Federally assisted programs
- 45 CFR Part 90—Nondiscrimination on the basis of age in programs or activities receiving Federal financial assistance

**Subpart B—Projects for the Provision of Vocational Rehabilitation Services****§ 1362.40 Special projects and demonstrations; improved services to severely handicapped individuals.**

(a) *What is the purpose of this program?* Under section 311(a)(1) of the Act, grants may be made for special projects, concerned with establishing programs and constructing facilities for expanding or otherwise improving vocational rehabilitation services and other rehabilitation services to handicapped individuals, especially those who are the most severely handicapped. Handicapped individuals served under this program include individuals with spinal cord injuries, blind individuals, deaf individuals, and other groups of severely handicapped individuals, irrespective of age or vocational potential, identified each year by the Commissioner.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by States and public and other non-profit agencies and organizations.

(c) *What are the matching requirements?* Grants may be made for paying all or part of the costs of activities covered under this program. Where part of the costs is to be borne by the grantee, the amount of grantee participation is determined at the time of the grant award and is generally not less than 10 percent of the total cost of the project.

(d) *What costs does the Federal assistance cover?* In addition to generally allowable project costs, Federal financial participation may also be available for the costs of construction of a rehabilitation facility.

(e) *Is an evaluative component required?* All projects and demonstrations supported under this program must contain an evaluative component to measure overall project effectiveness in providing vocational rehabilitation services and other rehabilitation services to severely handicapped individuals.

(f) *What are the special considerations in projects and demonstrations providing services to individuals with spinal cord injuries?* Projects in which vocational and other rehabilitation services are provided to individuals with spinal cord injuries, whether administered separately or in coordination with a large program supported in part under Title II of the Act, must:

(1) Establish a multi-disciplinary system of providing rehabilitation services specifically designed to meet the special needs of individuals with spinal cord injuries, including acute care, vocational and other rehabilitation services, community and job placement,

and long-term community follow-up and health maintenance. The system must be established on an appropriate geographical basis which reflects patterns of patient flow and must be administered in close coordination with similar programs of the National Institute of Handicapped Research, the Veterans Administration, the National Institute of Health, and other public and private agencies and institutions;

(2) Demonstrate and evaluate both the service and cost benefits of a regional service system to those individuals with spinal cord injuries who might be served within it;

(3) Establish, within the system, a rehabilitation research environment for the achievement of new knowledge leading to the reduction and treatment of complications arising from spinal cord injury and the development of new techniques of medical management and rehabilitation;

(4) Demonstrate and evaluate the development and application of improved methods and equipment essential to the care, management and rehabilitation of individuals with spinal cord injury; and

(5) Demonstrate methods of community outreach and education for individuals with spinal cord injury in areas such as housing, transportation, recreation, employment, and other community activities.

(g) *What are the special considerations in projects and demonstrations providing services to blind individuals?* Projects in which services are provided to blind individuals must:

(1) Demonstrate innovative methods of providing intensive rehabilitation services needed to rehabilitate blind individuals; or

(2) Provide mobility training services or comprehensive counseling services not otherwise available in the locality in which individuals served by the project reside; or

(3) Conduct coordinated rehabilitation service activities with other public or nonprofit agencies serving blind individuals in the same area.

(h) *What are the special considerations in projects and demonstrations providing services to deaf individuals?* Projects in which services are provided to deaf individuals must:

(1) Demonstrate innovative methods of providing the specialized services needed to rehabilitate and make maximum use of the vocational potential of deaf individuals; or

(2) Conduct coordinated activities with other public and nonprofit agencies administering programs for deaf persons in the same area in order to expand or

improve rehabilitation services for deaf individuals.

(i) *What are the special considerations in projects which involve constructing facilities?* The acquisition, expansion, remodeling, alteration or renovation of an existing building in connection with a special project or demonstration may not be undertaken unless it has been demonstrated to be essential to expanding or otherwise improving rehabilitation services to handicapped individuals within the related special project or demonstration. Any construction of a rehabilitation facility undertaken under this program is subject to the requirements affecting construction under § 1362.8 of this part.

**§ 1362.41 Special projects and demonstrations; new approaches to service delivery.**

(a) *What is the purpose of this program?* Under section 311(a)(2) of the Act, grants may be made for special projects and demonstrations, and related research and evaluation concerned with applying new types or patterns of services or devices, including opportunities for new careers for handicapped individuals or other individuals in programs serving handicapped individuals.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by States and public and other non-profit agencies and organizations.

(c) *What are the matching requirements?* Grants may be made for paying all or part of the costs of activities covered under this program. Where part of the costs is to be borne by the grantee, the amount of grantee participation is determined at the time of the grant award and is generally not less than 10 percent of the total cost of the project. In projects and demonstrations providing new career opportunities, grantees are expected to assume an increasing percentage of the new careerist salaries in order to assure that employment commitments will be met.

(d) *What costs does the Federal assistance cover?* In addition to generally allowable project costs, Federal financial participation may also be available for:

(1) New careerist salary and training expenses; and

(2) Necessary supportive services to enable new careerists to secure employment.

(e) *Is an evaluative component required?* All projects and demonstrations supported under this program must contain an evaluative component to measure overall program effectiveness.

(f) *What handicapped individuals may participate in new careers training?* Handicapped individuals to be provided new career opportunities and supportive services under this program may be only those individuals who have been determined by the State unit to be handicapped individuals under the State plan for vocational rehabilitation services under Part 1361.

(g) *What are the special considerations in projects and demonstrations providing new career opportunities?*

Applicants must assure that the occupations for which training is being provided will offer realistic possibilities for continuing full-time employment and an opportunity for promotion and advancement through structured channels of promotion.

**§ 1362.42 Grants for services for handicapped migratory agricultural workers or seasonal farmworkers.**

(a) *What do the special terms mean?* For purpose of this section—

(1) "Family members" or "members of the family" means any relative by blood or marriage of a handicapped migratory agricultural worker or seasonal farmworker and other individuals living in the same household with whom the handicapped migratory agricultural worker or the seasonal farmworker has a close interpersonal relationship, and who are with the worker, or have accompanied the worker on his migratory tour to the point in time at which the State agency comes into contact with him.

(2) "Migratory agricultural worker" means a person who occasionally or habitually leaves his place of residence on a seasonal or other temporary basis to engage in ordinary agricultural operations or in services incident to the preparation of farm commodities for the market in another locality in which he resides during the period of such employment (29 CFR Part 11).

(3) "Seasonal farmworker" means a person who on a seasonal or other temporary basis engages in ordinary agricultural operations or in services incident to the preparation of farm commodities for the market within daily commuting distance from his place of normal residence.

(b) *What is the purpose of this program?* Under section 312 of the Act, grants may be made for the support of projects or demonstrations for the provision of vocational rehabilitation services to handicapped individuals who are migratory agricultural workers or seasonal farmworkers and to members of their families (whether or not handicapped) who are with them, where these services are necessary to

the vocational rehabilitation of the handicapped migratory agricultural worker or seasonal farmworker.

(c) *Who is eligible to apply for Federal assistance?* Applications may be made by State vocational rehabilitation agencies or local agencies administering a vocational rehabilitation program under written agreements with State agencies.

(d) *May joint projects be developed?* A State agency may, if it chooses, enter into an agreement with the State vocational rehabilitation agencies of one or more other States to develop a cooperative program for the provision of vocational rehabilitation services under this section.

(e) *What costs does the Federal assistance cover?* In addition to generally allowable project costs, Federal financial participation may also be available for:

(1) Staff training necessary to improve the capacity of the State or local agency to serve handicapped migratory agricultural workers or seasonal farmworkers and members of their families when the training is included within a program of services; and

(2) Maintenance payments which will be provided at rates consistent with rates paid to handicapped individuals under Part 1361 of this chapter.

(f) *What are the special project considerations under this program?* Each project must be administered in close cooperation with other public and nonprofit agencies and organizations having special skills and experience in the provision of services to migratory agricultural workers, seasonal farmworkers, or their families, including programs under Title I of the Elementary and Secondary Education Act of 1964, the Migrant Health Act and the Farm Labor Contractor Registration Act of 1963.

**§ 1362.43 Projects with industry.**

(a) *What is the purpose of this program?* Under section 621 of the Act, agreements may be entered into with individual employers and with other entities to establish jointly financed projects which provide handicapped individuals with training, employment, and supportive services and assistance within business, industry, or other realistic work settings in order to prepare them for competitive employment and permit them to maintain the employment.

(b) *Who is eligible to participate in this program?* (1) Employers and organizations with whom the Commissioner may enter into an agreement include any industrial,

business, or commercial enterprise; labor organization; employer, industrial, or community trade association; rehabilitation facility; or other agency or organization with the capacity to arrange, coordinate, or conduct training and other employment programs and provide supportive services and assistance for handicapped individuals in a realistic work setting.

(1) The Commissioner enters into an agreement in consultation with the Secretary of Labor and the Secretary of Commerce and with the designated State unit in the State in which the project is to be carried out, except where the scope of the proposed project extends beyond a single State.

(c) *What are the matching requirements?* The Federal share may not be more than 80 percent of the total cost of the project.

(d) *What costs does the Federal assistance cover?* Federal financial participation under this program may be available for:

(1) The costs of job training and related vocational rehabilitation services and supportive rehabilitation services;

(2) Instruction and supervision of trainees;

(3) Training materials and supplies, including consumable materials;

(4) Instructional aids;

(5) Bonding fees, liability and insurance premiums;

(6) The purchase or modification of equipment of facilities adapted for the use of handicapped individuals and special aids and appliances; and

(7) Minor alteration and renovation necessary to ensure access to and utilization of buildings by handicapped persons.

(e) *What is the required scope of project activities under this program?* Project activities under this program include:

(1) Providing handicapped individuals with training and employment in a realistic work setting in order to prepare them for employment in the competitive market. The training and employment programs shall include a planned and systematic sequence of training and instruction in occupational and employment skills, and provide reasonable assurance of gainful employment at the successful termination of such training and instruction.

(2) Providing handicapped individuals with supportive services which are necessary to permit them to continue to engage in the employment or the type of employment for which they have received training under this program.

(3) To the extent appropriate, expanding job opportunities for handicapped individuals by analyzing job demands and capabilities of the handicapped individuals and providing for:

(i) The development and modification of jobs to accommodate the special needs of the handicapped individuals being trained and employed under this program;

(ii) The purchase and distribution of special aids, appliances, or equipment adapted to the needs of a handicapped individual for use at a job site;

(iii) The modification of any facilities or equipment of the employer which are to be used primarily by handicapped individuals under this program; and

(iv) The establishment of appropriate job placement services.

(f) *What prior assurances are required for agreements?* Before entering into an agreement under this program, the Commissioner consults with the prospective employer or other entity sponsoring the project, and, to the extent possible, with the designated State unit and the handicapped individuals to be trained and employed under the project. On the basis of this consultation, it must be determined that:

(1) The designated State unit will, to the maximum extent practicable, maintain a continuing relationship with the handicapped individuals to be served in the project and will either provide necessary vocational rehabilitation services and related supportive services directly or will otherwise ensure their availability;

(2) The bargaining agent under any applicable collective bargaining agreement concurs with the project;

(3) The trainee wage rates will not tend to create unfair competitive labor cost advantages nor have the effect of impairing or depressing wage or working standards established for experienced workers for work of a comparable character; and

(4) No abnormal labor condition such as a strike, a lockout, or other similar condition exists with respect to the applicant.

(g) *What general provisions are required in agreements?* Any agreement entered into must, in addition to standard provisions:

(1) Provide for adherence to the terms or conditions of employment prescribed by any applicable Federal, State, or local law;

(2) Provide that a determination by competent authority of failure to adhere to the terms or conditions required by paragraph (g)(1) of this section will constitute cause for termination of the contract or agreement;

(3) Provide that the Federal share of the costs will cover only a part of the total costs of the project;

(4) Provide that the recruitment, examination, appointment, training, promotion, retention, or any other personnel action with respect to any handicapped individual receiving training or employment, will be without regard to race, sex, color, creed, age, or national origin, and that violation will constitute grounds for termination of the contract or arrangement and that the United States will have a right to seek judicial enforcement of this provision;

(5) Provide that trainees will be compensated for hours spent in production of any goods or services;

(6) Provide that individuals to receive training or employment services under the contract or arrangement will include only those individuals determined by the appropriate designated State unit to be handicapped individuals suitable for these services;

(7) Provide reasonable assurance that handicapped individuals successfully completing the training program will be employed by the employer or within a similar enterprise;

(8) Specify the duration of the project;

(9) Provide that when funds are given directly to an employer, the Commissioner, together with the designated State unit, has the right to review any termination of employment. In the event that the termination occurs less than three years after the handicapped individual began his or her employment, the Commissioner is entitled to require the repayment of a portion of the funds made available to the employer, if the Commissioner in consultation with the designated State unit determines that there was not a reasonable cause for the termination;

(10) Provide that any handicapped individual placed with an employer under this program will be given terms and benefits of employment equal to those which are given other employees of the employer;

(11) Provide that handicapped employees will not be unreasonably segregated from other employees; and

(12) Contain an agreement to make reports and to keep any records and accounts required by the Commissioner and to make records and accounts available for audit purposes.

(h) *What wage rates are required under agreements?* (1) The agreement must include the rate of compensation to be paid to trainees engaged in the production of any goods or services. The wage rate paid a trainee must be the higher of the following:

(i) The minimum entrance rate for inexperienced workers in the same

occupation or if the occupation is new to the establishment, the prevailing entrance rate for the occupation among other establishments in the community or area; or

(ii) The minimum rate required under the Fair Labor Standards Act or the Walsh-Healy Public Contracts Act, to the extent that these acts are applicable to the trainee.

(2) The agreement must further provide for an increasing rate of payment to trainees if the training program is of such duration that periodic increases are reasonable and if the proficiency of the trainee merits the increases.

(i) *What on-the-training is required?* The agreement must:

(1) Provide for methods of instruction, progression of trainees, and size of the training group, including individualized or group training, comparable in duration to other training programs for the particular occupation, and adequate in content to qualify trainees for employment;

(2) Provide adequate and safe facilities and equipment; and

(3) Require that suitable records of attendance, performance and progress of trainees be maintained and that these records be made available to the Commissioner when requested.

#### § 1362.44 Projects for vocational training services.

(a) *What do the special terms mean?* For purposes of this section—

(1) "Training in occupational skills" means a planned and systematic sequence of instruction under competent supervision which is designed to impart predetermined skills and knowledge with respect to a specific occupational objective or a job family, and to assist the individual to adjust to a work environment through the development of appropriate patterns of behavior.

(2) "Work evaluation" means the appraisal of the individual's capacity:

(i) To adjust to a work environment;

(ii) To acquire occupational skills; and

(iii) To attain appropriate vocational goals.

(3) "Work testing" means the utilization of work, simulated or real, to assess the individual's productive, physical, and psychological capacity to adapt to a work environment.

(4) "Job tryouts" means work experience, within a rehabilitation facility or in conjunction with outside industry or other community resources to assist the individual to acquire knowledge and develop skills; and to assess his readiness for job placement or fitness to engage in a specific occupation.

(5) "Vocational training services" includes:

- (i) Training with a view toward career advancement;
- (ii) Training in occupational skills;
- (iii) Related services including work evaluation, work testing, provision of occupational tools and equipment required by the individual to engage in such training, and job tryouts; and
- (iv) Payment of weekly training allowances to individuals receiving such training and related services.

(b) *What is the purpose of this program?* Under section 302(b) of the Act, grants may be made for providing vocational training services to handicapped individuals, especially the most severely handicapped, in public or other nonprofit rehabilitation facilities.

(c) *Who is eligible to apply for Federal assistance?* Applications may be made by States and public and nonprofit organizations and agencies. Any rehabilitation facility involved in providing vocational training services, must:

- (1) Be public or nonprofit;
- (2) Have been in operation at least 1 year;
- (3) Provide training courses in occupational skills (with the major portion of each course being provided within the facility) and related services including work evaluation, work testing, and job tryouts, and the major portion of each of these services, except for job tryouts, must be provided within the facility;
- (4) Meet occupational health and safety standards prescribed by regulations of the Secretary of Labor;
- (5) Meet standards for rehabilitation facilities established by the Commissioner; and
- (6) Prepare trainees for gainful employment.

(d) *What costs does the Federal assistance cover?* In addition to generally allowable project costs, Federal financial participation may also be available for the costs of weekly training allowances.

(e) *What are the special project considerations under this program?* Each applicant under this program must provide evidence that:

- (1) Weekly training allowances will supplement any wages or other remuneration due to a trainee, and the amount of the payment for the weekly training allowance will be identified and disbursed separately from any payment representing wages or other remuneration due to a trainee;
- (2) No trainee will remain in training when it is determined that he or she is no longer making progress (as indicated by regular training progress reports)

toward the completion of a training program or in any event for more than 2 years;

(3) If any portion of the vocational training services is performed outside the designated rehabilitation facility, the applicant will retain responsibility for the quality of the services; and

(4) The full range of vocational training services will be made available to each trainee to the extent needed.

(f) *What individuals may participate in this program?* Only individuals who have been determined by the appropriate State unit to be eligible for and in need of vocational training services may receive services under this program. Severely handicapped individuals must be selected for participation in a project prior to other handicapped individuals.

(g) *How much may weekly training allowances be?* (1) A weekly training allowance must be available to each trainee, except that the allowance may not be paid for any period in excess of 2 years and for any week shall not exceed \$30 plus \$10 for each dependent, or \$70, whichever is less. Dependents may be included when their relationship to the trainee is that of spouse, parent, child under the age of 21 (including an adopted child or stepchild), or handicapped child whose dependency is related to the handicap, and who are living in the same home with the trainee.

(2) The amount of the weekly training allowance is determined in accordance with paragraphs (h) and (i) of this section. The adjusted weekly training allowance available to a trainee may not be less than \$20 per week. When a weekly training allowance is paid for dependents, the amount is \$10 per week for each dependent.

(3) The State unit shall determine the amount of the weekly training allowance and any adjustment to it, after consultation with the facility and in accordance with the training services plan.

(h) *What factors are considered in determining the amount of weekly training allowances?* The following factors must be considered:

- (1) The extent of the need for an allowance including any expenses reasonably attributable to receipt of training services;
- (2) The extent to which the allowance will help ensure entry into and satisfactory completion of training; and
- (3) The extent to which the allowance will motivate the trainee to achieve an improved standard of living.

(i) *What factors are considered in adjustment of weekly training allowances?* (1) Adjustment in the weekly training allowance may be made

at any time during the individual's training period and the amount of the allowance shall be reviewed periodically. The facility may propose the adjustment, but the final determination is made by the State unit.

(2) In considering whether an adjustment is appropriate the following factors are considered:

- (i) Whether the trainee is earning a wage;
- (ii) The relationship of the amount of wages, if any, to the amount of the allowance;
- (iii) Any other material change in the economic condition of the individual or his family; and
- (iv) The effect of any adjustment on the incentive of the trainee.

#### § 1362.45 Projects for American Indian vocational rehabilitation services.

(a) *What do the special terms mean?* For the purpose of this section—

(1) "American Indian" means a person who is a member of an Indian tribe.

(2) "Governing bodies of Indian tribes" means those duly elected or appointed representatives of an Indian tribe or of an Alaskan native village. These representatives must have the authority to enter into contracts, agreements, and grants on behalf of their constituency.

(3) "Indian tribe" means any Federal or State Indian band, rancheria, pueblo, colony, or community, including any Alaska Native village or regional village corporation (as defined in or established pursuant to the Alaska Native Claims Settlement Act).

(4) "Reservation" means a Federal or State Indian reservation, public domain Indian allotment, former Indian reservation in Oklahoma, and land held by incorporated Native groups, regional corporations and village corporations under the provisions of the Alaska Native Claims Settlement Act.

(b) *What is the purpose of this program?* Under section 130 of the Act, grants may be made to provide vocational rehabilitation services to handicapped American Indians who reside on Federal or State reservations in order to prepare them for suitable employment.

(c) *Who is eligible to apply for Federal assistance?* Applications may be made only by the governing bodies of Indian tribes located on Federal and State reservations. A governing body is required to consult with the designated State unit or the appropriate designated State units in the development of an application.

(d) *How are the services to be administered?* A governing body may provide the vocational rehabilitation

services directly or it may contract or otherwise enter in an agreement with a designated State unit, a rehabilitation facility, or another agency to assist in the implementation of the vocational rehabilitation service program for handicapped American Indians. A governing body may also enter into an inter-tribal arrangement with governing bodies of other Indian tribes for carrying out a project which serves more than one Indian tribe. In any case, to the maximum extent feasible, the vocational rehabilitation service program must be comparable in type and quality to that provided by the State unit or units in the State or States in which the program is being carried out and each tribal program must be administered by a special tribal organizational unit for vocational rehabilitation.

(e) *What costs does the Federal assistance cover?* Federal financial participation may be available in expenditures for the provision of vocational rehabilitation services and for the administration, including staff development, of a program of vocational rehabilitation services. Federal financial participation may also be available in expenditures for services reflecting the cultural background of the American Indians being served, including treatment provided by native healing practitioners who are recognized as such by the tribal vocational rehabilitation program.

(f) *What are the special requirements under this program related to the State plan program?* Each applicant under this program must provide evidence that:

(1) Effort will be made to provide a broad scope of vocational rehabilitation services in a manner and at a level of quality at least comparable to those services provided by the designated State unit under Part 1361;

(2) There has been consultation in the preparation of the application with the designated State unit or designated State units of the State or States in which vocational rehabilitation services are to be provided under the proposed project;

(3) All decisions affecting eligibility for and the nature and scope of vocational rehabilitation services to be provided, and the provision of these services, will be made by the tribal vocational rehabilitation program through its vocational rehabilitation unit and will not be delegated to another agency or individual;

(4) Priority in the delivery of vocational rehabilitation services will be given to those handicapped American Indians who are the most severely handicapped;

(5) An order of selection of handicapped individuals to be served under the program will be specified if services cannot be provided to all eligible handicapped American Indians who apply;

(6) All vocational rehabilitation services will be provided according to an individualized written rehabilitation program which has been developed jointly by the representative of the service providing organization and each handicapped American Indian being served;

(7) Handicapped American Indians living on Federal or State reservations where service programs are being carried out under this section will have an opportunity to participate in matters of general policy development and implementation affecting vocational rehabilitation service delivery on the reservation;

(8) Cooperative working arrangements will be developed with the designated State unit, or designated State units, as appropriate, which are providing vocational rehabilitation services to other handicapped individuals who reside in the State or States being served;

(9) Any similar benefits available to handicapped American Indians under any other public program which might meet in whole or in part the cost of any vocational rehabilitation service will be full considered in the provision of vocational rehabilitation services in accordance with § 1361.47 unless this consideration would significantly delay the delivery of service;

(10) Any handicapped American Indian applicant or recipient of services who is dissatisfied with any action with regard to the provision or denial of a vocational rehabilitation service under this section may file a request for an administrative review of the action by a member of the supervisory staff of the organization administering the program. If the client is still dissatisfied, he or she may request a fair hearing before the project administrator, or the next higher level in the administrative structure of the tribal organization;

(11) Minimum standards will be established for facilities and providers of service which will be comparable to the standards set by the designated State unit or designated State units in the State or States in which the program is to be provided; and

(12) Maximum use will be made of public or other vocational or technical training facilities or other appropriate community resources.

(g) *What are the special project considerations under this program?* (1) Grants may not be made under this

program to cover the costs of providing vocational rehabilitation services to handicapped individuals not residing on Federal or State reservations.

(2) Any handicapped American Indian who is eligible for services under this program but who wishes to be provided service by the designated State unit must be referred to the State unit for such services.

(3) Preference in employment in connection with the provision of vocational rehabilitation services under this section must be given to American Indians, with a special priority being given to handicapped American Indians.

(4) The provisions of sections 5, 6, 7, and 102(a) of the Indian Self-Determination and Education Assistance Act also apply under this program. These provisions relate to grant reporting and audit requirements, maintenance of records, access to records, availability of required reports and information to Indian people served or represented, repayment of unexpended Federal funds, criminal activities involving grants, penalties, wage and labor standards, preference requirements for American Indians in the conduct and administration of the grant, and requirements affecting requests of tribal organizations to enter into contracts. For purposes of applying these requirements to this program, the Commissioner is authorized to carry out those responsibilities assigned to the Secretary of Interior.

(5) To the extent that funds have been appropriated under this section, the Commissioner approves all applications which meet acceptable standards of program quality. If the Commissioner does not approve any application because of deficiencies in proposed program standards, he provides technical assistance to the applicant Indian tribe with respect to any areas of the proposal which were judged to be deficient.

### Subpart C—Assistance for Rehabilitation Facilities

#### § 1362.50 Project development grants.

(a) *What is the purpose of this program?* Under section 301(d) of the Act, grants may be made for the purpose of assisting in planning the development of a rehabilitation facility as well as the services to be provided by the facility.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by public or other nonprofit agencies, institutions, or organizations which are either operating or are studying the feasibility of operating a rehabilitation facility.

(c) *What costs does the Federal assistance cover?* In addition to generally allowable project costs, Federal financial participation may also be available for:

- (1) Expenses associated with the use of volunteers; and
- (2) Architectural planning incidental to program planning but not including working drawings.

(d) *How long may the Federal assistance be available?* A project may be approved for a maximum project period of 12 months.

**§ 1362.51 Grants for construction of rehabilitation facilities.**

(a) *What is the purpose of this program?* Under section 301(b) of the Act, grants may be made for the construction of rehabilitation facilities.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by State vocational rehabilitation agencies or other public or nonprofit organizations or agencies which operate or propose to operate a public or other nonprofit rehabilitation facility.

(c) *What are the matching requirements under this program?* The Federal share may not be more than 50 percent of the total project cost.

(d) *What costs may the Federal assistance cover?* Federal financial participation may be available for:

- (1) Acquisition of land in connection with construction of a rehabilitation facility;
- (2) Acquisition of existing buildings;
- (3) Remodeling, alteration, renovation, or expansion of existing buildings;
- (4) Construction of new buildings;
- (5) Architect's services;
- (6) Site survey and soil investigation;
- (7) Fixed or movable equipment;
- (8) Works of art in an amount not to exceed 1 percent of the total cost of the project; and
- (9) Other activities specifically provided for in the application.

(e) *How long may the Federal assistance be available?* Grants are awarded for that period of time necessary for the completion of the approved construction project. Any project in which the construction has not begun during the 18-month period immediately following the date of notice of the grant award may be terminated at the end of that time period by the Commissioner.

(f) *What are the special requirements under this program?* (1) Applicants must assure that they will comply with the requirements specified under § 1362.8 and with any other requirements of the Department in effect concerning

Federally assisted building design and construction activities.

(2) The Commissioner may approve exceptions to these requirements where he finds that such exceptions are not inconsistent with the Act and the purpose of this program.

**§ 1362.52 Rehabilitation facility staffing grants.**

(a) *What is the purpose of this program?* Under section 301(c) of the Act, grants may be made for the compensation of rehabilitation facility professional and technical staff.

(b) *Who is eligible to apply for Federal assistance?* (1) Applications may be made only by public or other nonprofit rehabilitation facilities constructed after September 26, 1973.

(2) Rehabilitation facility staffing grants may be made only with respect to the operation of a rehabilitation facility following construction. Where the construction consists of expansion, remodeling, alteration, or renovation of an existing rehabilitation facility, the expansion, remodeling, alteration, or renovation is required to be extensive enough to result in the addition of new services or the extension of existing services to a substantially increased number of handicapped individuals. If the rehabilitation facility was in operation prior to the construction activity, a staffing grant may be made only for the additional staff necessary for the facility to provide new services or extend existing services to a substantially increased number of clients.

(c) *What are the matching requirements?* The amount of Federal share under a rehabilitation facility staffing grant is based on either the date on which the first client is admitted for services after completion of the related construction project or on that earlier date after completion of the construction project which is specified in the approved application. The Federal share may not be more than 75 percent of total project costs for the period ending with the last day of the 15th month following the month in which the operation of the rehabilitation facility began; 60 percent of costs for the first year after that, and 45 percent of costs for the third year after that.

(d) *What costs may the Federal assistance cover?* Federal financial participation may be available for personnel costs (including fringe benefits) of rehabilitation facility staff, as set forth in the approved application.

(e) *How long may the Federal assistance be available?* A project may be approved for a maximum project period of 4 years and 3 months.

**§ 1362.53 Rehabilitation facility improvement grants.**

(a) *What is the purpose of this program?* Under section 302(c) of the Act, grants may be made for activities designed to analyze, improve, and increase the professional services provided to handicapped individuals by rehabilitation facilities, the management effectiveness of facilities or any other part of their capacity to provide employment and services for handicapped individuals.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by public or nonprofit rehabilitation facilities or organizations, or by a combination of such rehabilitation facilities.

(c) *What are the matching requirements?* The Federal share may not be more than 80 percent of the total project cost.

**§ 1362.54 Grants for establishing or operating comprehensive rehabilitation centers.**

(a) *What do the special terms mean?* (1) "Comprehensive rehabilitation center" means a facility or group of facilities which serves as a focal point within a community for the development and delivery of services for handicapped persons and other persons. A comprehensive rehabilitation center functions as a community information and referral resource center for handicapped persons and for other public and other nonprofit agencies in the community which serve handicapped persons. A comprehensive center may, in addition, directly provide a broad range of vocational rehabilitation, health, educational, social, and recreational services to handicapped persons.

(2) "Handicapped person" means an individual of any age who has a physical or mental disability.

(b) *What is the purpose of this program?* Under section 305 of the Act, grants or contracts may be made to establish or operate comprehensive rehabilitation centers. These comprehensive rehabilitation centers serve primarily as centers for the development, delivery, and coordination of vocational rehabilitation services and other services needed by handicapped persons in the community.

(c) *Who is eligible to apply for assistance?* (1) Applications may be made by designated State units.

(2) A designated State unit which has been awarded a grant under this program may award a subgrant to a unit of general purpose local government or to any other public or nonprofit private agency or organization or enter into a

contract with agencies or organizations in the community.

(d) *What are the matching requirements?* (1) The Federal share of any grant awarded to a designated State unit may not be more than 80 percent of the total costs of the project.

(2) No subgrant or contract awarded by a State unit to a general purpose local government unit, a public or other nonprofit agency or organization, or other agencies or organizations may pay more than 80 percent of the total cost of establishing or operating a comprehensive rehabilitation center under this program.

(e) *What costs does the assistance cover?* In addition to generally allowable project costs, Federal financial participation may also be available for:

(1) Salaries of additional professional and technical personnel required to operate a comprehensive rehabilitation center;

(2) Acquisition of equipment necessary for operating a center;

(3) Expansion, remodeling or alteration of an existing building when necessary to adapt it or increase its effectiveness for use as a comprehensive rehabilitation center;

(4) Leasing of a facility to serve as a comprehensive rehabilitation center; and

(5) Works of art in an amount not to exceed one percent of the total cost of the project when the expansion, remodeling or alteration of an existing building is involved.

(f) *What are the special project considerations under this program?* (1) Services may be provided within the comprehensive rehabilitation center directly by the agency or organization or the group of agencies or organizations which is operating the center or they may be provided by other agencies or organizations using either their own facilities or the facilities of the center;

(2) The facilities of the center must be made available for recreational activities for handicapped persons;

(3) To the maximum extent possible, the center must provide upon request to other public and other nonprofit agencies, organizations, facilities and other entities in the community information services and technical assistance necessary to assist them in complying with the requirements of this Act, with special reference to the requirements under section 504 of the Act. Technical assistance includes both the maintenance of rosters of special support personnel available within the community such as interpreters for the deaf, readers for the blind, attendants, legal aid and advocacy personnel, and

the coordination of referrals of these personnel;

(4) Any center established or operated under this program must be located in close proximity to the majority of the handicapped persons in the community to be served;

(5) The need for the establishment of a comprehensive rehabilitation center under this program must be identified in the State planning for rehabilitation facilities under § 1361.22;

(6) Information and referral services provided by a center must be fully coordinated with information and referral services provided by the State unit under § 1361.20 or by any other public or other nonprofit agency or organization in the community;

(7) Priority is given to establishing or operating comprehensive rehabilitation centers at facilities which are already in operation; and

(8) New facilities are established through the expansion, remodeling, or alteration of an existing building only after it has been fully demonstrated that there are no existing facilities in the community with the potential for developing and delivering adequate services under this program. If the expansion, remodeling, or alteration of an existing building is involved, each facility must comply with the requirements specified under § 1361.8, and with any other requirements of the Department in effect concerning Federally assisted building design and construction activities.

#### § 1362.55 Loan guarantees for rehabilitation facilities.

(a) *What is the purpose of this program?* Under section 303 of the Act, the Commissioner may guarantee the payment of principal and interest on loans made by non-Federal lenders and by the Federal Financing Bank to private nonprofit entities for the construction (including equipment) of rehabilitation facilities.

(b) *What special assurances are required from applicants?* Each applicant under this program must assure that:

(1) The construction of the rehabilitation facility will be carried out in accordance with the requirements specified under § 1362.8 and with any other requirements of the Department in effect concerning Federally assisted building design and construction activities;

(2) The need for the rehabilitation facility and the construction activity for which the loan is sought have been identified by the State unit within the State planning for rehabilitation facilities under § 1361.22;

(3) Sufficient financial resources are available to enable compliance with the terms and conditions of the loan for which the guarantee is sought;

(4) There is legal authority to finance, construct, and maintain the proposed project, to apply for and receive the loan for which the guarantee is sought, and to pledge or mortgage any assets or revenues to be given as security for the loan or against other satisfactory security;

(5) The loan will be secured by a first loan lien against the facility to be constructed or against other security satisfactory to the Commissioner;

(6) The rate of interest on the loan does not exceed the annual percentage determined by the Commissioner to be reasonable, taking into account the range of interest rates prevailing in the private market for similar loans and the risks assumed by the United States;

(7) The loan would not be available on reasonable terms and conditions without the guarantee; and

(8) Any additional determination found necessary by the Commissioner with respect to particular applications in order to protect the financial interests of the United States.

(c) *How is the evidence of indebtedness to be presented?* The evidence of indebtedness with respect to direct loans must be in the form and detail required by the Commissioner.

(d) *How are loans to be secured?* All loans must be secured in a manner which the Commissioner finds reasonably sufficient to insure repayment. The security may be one or a combination of the following:

(1) A first mortgage on the facility and its site;

(2) Negotiable stocks or bonds of a quality and value acceptable to the Commissioner;

(3) A pledge of unrestricted and unencumbered income from an endowment or other trust funds acceptable to the Commissioner;

(4) A pledge of a specific portion of annual general or special revenues of the applicant, acceptable to the Commissioner;

(5) Full faith and credit (tax supported) obligations of a State or local public body; or

(6) Such other security as the Commissioner may find acceptable in specific instances.

(e) *What is the repayment period?* The repayment period is limited to 25 years; provided, that:

(1) The Commissioner may, in particular cases where he determines that a repayment period of less than 25 years is more appropriate to an

applicant's total financial plan, approve the shorter repayment period; and

(2) In no case may a loan repayment period exceed the estimated useful life of the facility to be constructed with the assistance of the loan.

(f) *How are loans repaid?* Unless otherwise specifically authorized by the Commissioner, each loan is repayable in substantially level total annual installments of principal and interest, sufficient to amortize the loan through the final year of the life of the loan.

(g) *What is the loan guarantee agreement?*

(1) When an application for a loan guarantee is approved by the Commissioner, an offer of a loan guarantee is sent to the applicant, setting forth the pertinent terms and conditions. The loan guarantee is conditioned upon the fulfillment of these terms and conditions. The accepted loan guarantee offer constitutes the Loan Guarantee Agreement between the Commissioner and the applicant.

(2) Each Loan Guarantee Agreement must provide:

(i) That the loan guarantee evidenced by the agreement is incontestable:

(A) In the hands of the applicant on whose behalf the loan guarantee is made except for fraud or misrepresentation on the applicant's part in securing the guarantee;

(B) As to any person (or successor in interest) who makes or contracts to make a loan to the applicant in reliance on the loan guarantee, except for fraud or misrepresentation on the part of this other person in making or contracting to make the loan;

(ii) That if the applicant defaults in making payment, when due, of the principal and interest on the loan for which the guarantee is made, and this default is not cured within 90 days of its occurrence, the holder of the loan has the right to make demand in writing upon the Commissioner for the purchase of the loan by the Commissioner.

(iii) That each holder of a loan to an applicant on whose behalf the loan guarantee is made under the Agreement has a contractual right to receive from the United States interest payments in an amount sufficient to reduce by 2 percent per year the net effective interest rate determined by the Commissioner to be otherwise payable on the loan;

(iv) That payments of interest under paragraph (g)(2)(iii) of this section are made by the Commissioner, in accordance with the terms of the loan directly to the holder of the loan or to a trustee or agent designated in writing to the Commissioner by the holder until the Commissioner is notified in writing by

the holder that the loan has been transferred. Under such a written notification of transfer the Commissioner makes interest payments directly to the new holder of the loan;

(v) That the applicant is permitted to repay up to 15 percent of the original principal amount of the loan in any calendar year without additional charge; and

(vi) Any other provisions found necessary by the Commissioner to protect the financial interests of the United States.

(h) *When is a loan guarantee closed?* Closing for any loan is accomplished at the time agreed upon by the parties to the loan and found acceptable by the Commissioner.

(i) *May the right of recovery be waived?* In determining whether there is good cause for waiver of any right of recovery, the Commissioner takes into consideration the extent to which:

(1) The facility with respect to which the loan guarantee or direct loan was made will continue to be devoted by the applicant or other owner to use for the purpose for which it was constructed or another public or nonprofit purpose which will promote the purposes of the Act;

(2) There are reasonable assurances that for the remainder of the repayment period of the loan, other public or nonprofit facilities not previously utilized for the purpose for which the facility was constructed will be so utilized and are substantially equivalent in nature and extent for such purposes; and

(3) Recovery would seriously curtail the provisions of vocational rehabilitation services to handicapped individuals in need of these services in the geographical area.

#### Subpart D—[Reserved]

#### Subpart E—Rehabilitation Training

##### § 1362.70 Rehabilitation long-term training.

(a) *What is the purpose of this program?* Under section 304 of the Act, grants or contracts may be made for the continuing support of training projects designed to assist in increasing the numbers of personnel trained in providing vocational, medical, social, and psychological rehabilitation services to handicapped individuals and in demonstrating experimental and innovative methodologies for the training of skilled rehabilitation personnel.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by State agencies and by other

public or nonprofit agencies and organizations, including institutions of higher education.

(c) *What are the matching requirements?* No minimum share is routinely required of applicants but the applicant is expected to furnish as large a part of the total project cost as possible. In the case of academic training projects with a multi-year project period, the applicant's share of the teaching costs is expected to increase progressively in each succeeding year so that total personnel costs are fully absorbed by the grantee at the termination of the project period.

(d) *What costs does the Federal assistance cover?* (1) In addition to generally allowable project costs, Federal financial participation may also be available for:

- (i) Student stipends;
- (ii) Tuition and fees; and
- (iii) Student travel in conjunction with training assignments.

(2) Except in the case of State vocational rehabilitation agencies, other agencies of a State, or agencies of local governments, reimbursement of indirect costs will not exceed 8 percent of the amount allowed for direct costs, exclusive of permanent equipment, rental of space, building alteration or renovation, subagreements (except for procurements), tuition, fees, and training allowances for postdoctoral trainees).

(e) *What is the scope of this program?* Awards are made to provide a balanced program of assistance to meet the medical, vocational, and other personnel training needs of both public and private rehabilitation programs, rehabilitation facilities, and other institutions. The balanced program of assistance includes academic and non-academic training activities in rehabilitation medicine, rehabilitation nursing, rehabilitation counseling, rehabilitation social work, rehabilitation psychiatry, rehabilitation psychology, physical therapy, occupational therapy, speech-language pathology and audiology, rehabilitation facility administration, vocational evaluation and work adjustment, prosthetics and orthotics, specialized personnel in providing services to blind and deaf individuals, rehabilitation job placement and job development, and therapeutic recreation for handicapped individuals, including homebound and institutionalized individuals. The balanced program also includes projects to train individuals to work more effectively with handicapped individuals with limited English-speaking ability, projects to train new types of rehabilitation manpower, experimental projects concerned with the training of rehabilitation personnel,

and projects to demonstrate innovative models and techniques for the training of rehabilitation workers.

(f) *What are the special considerations in the review of applications?* The Commissioner arranges for any new or competing continuation application submitted under this program to receive a review in a group meeting of consultants who are not regular Federal employees and who are qualified by virtue of training and experience in the field of rehabilitation in which the application is submitted. The review is conducted in coordination with similar peer review groups established within such Federal agencies as the National Institute of Handicapped Research and the National Institutes of Health when these groups have expertise in matters pertaining to training related to the treatment and rehabilitation of handicapped individuals. The peer groups:

(1) Make recommendations concerning the merit of new and competing continuation applications prior to the awarding of funds; and  
(2) Provide guidance in the dissemination of findings resulting from rehabilitation training activities.

(g) *What are the special considerations in awarding traineeships?* (1) Traineeships may provide financial support to students with a career interest in a rehabilitation field at any level of training. (2) No training or instruction may be provided to an individual for any one course of study extending for a period in excess of four years. (3) Each trainee:

(i) Must be a United States citizen or a foreign national lawfully admitted to the United States for permanent residence;  
(ii) Must take the training only at the educational institution or agency designated in the traineeship award or under the auspices of that institution or agency;

(iii) Must not be an employee of the Federal Government; and

(iv) Must not concurrently receive educational allowances from any other Federal, State, or local public or voluntary agency when that allowance is conditioned on a conflicting employment obligation incurred by the trainee. Excepted are Federally assisted student loans, or educational allowances or benefits payable under chapters 34, 35, and 36 of Title 38, U.S.C. as limited by section 213 of the Veterans' Educational and Training Amendments Act of 1972, or educational allowances or benefits for veterans payable under any State or local program; and

(v) Must apply to the institution or agency which has been awarded a grant

for traineeships under this program since the selection of all trainees is made by the institution or agency conducting the training.

**§ 1362.71 State vocational rehabilitation unit in-service training.**

(a) *What is the purpose of this program?* Under section 304 of the Act, grants may be made for the support of special projects for training State vocational rehabilitation unit personnel in program areas essential to the effective management of the unit's program of vocational rehabilitation services or in skill areas which will enable staff personnel to improve their ability to provide services to severely handicapped individuals.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made only by State vocational rehabilitation units.

**§ 1362.72 Rehabilitation continuing education programs.**

(a) *What is the purpose of this program?* Under section 304 of the Act, grants may be made for the support of programs which:

(1) Develop and conduct training for State unit staff at the administrative, supervisory, professional, subprofessional, or clerical levels in order to develop and upgrade needed knowledge and skills for effective agency performance and to develop mastery of new program developments dealing with significant issues, priorities and legislative thrusts of the State-Federal vocational rehabilitation program; and

(2) Develop and conduct training programs for staff of public and other nonprofit rehabilitation agencies and facilities which cooperate with State units in the delivery of rehabilitation services.

(b) *What are the matching requirements?* No minimum share is routinely required of applicants but the applicant is expected to furnish as large a part of the total project cost as possible.

(c) *What are the special project considerations under this program?* A rehabilitation continuing education program must provide for:

(1) A broad integrated sequence of training activities; and

(2) Training which focuses on meeting recurrent training needs common throughout a multi-State geographical area.

**§ 1362.73 Rehabilitation short-term training.**

(a) *What is the purpose of this program?* Under section 304 and section 12(a)(2) of the Act, short-term training

and technical instruction may be provided in areas of special significance to the delivery of vocational, medical, social, and psychological rehabilitation services.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by State agencies and public or nonprofit agencies and organizations, including institutions of higher education.

(c) *What are the matching requirements?* (1) Under section 304 of the Act, grants and contracts may pay only part of the project costs and the applicant is expected to furnish as large a part of the total project cost as possible.

(2) Although no matching share is required of applicants under section 12(a)(2) of the Act, they may be expected to share in the costs of the project. In such cases, the amount of participation is a matter of negotiation.

(d) *What costs does the Federal assistance cover?* (1) In addition to generally allowable project costs, Federal financial participation may also be available for:

(i) Trainee per diem costs; and  
(ii) Trainee travel.

(2) Except in the case of State vocational rehabilitation agencies, other agencies of a State, or agencies of local government, reimbursement of indirect costs will not exceed 8 percent of the amount allowed for direct costs.

(e) *How long may the Federal assistance be available?* A project may be approved for a maximum project period of 12 months.

(f) *What are the special project considerations under this program?* (1) Short-term training projects include special seminars, institutes, workshops, and other courses of short duration which meet non-recurring training needs and which have been identified by the Commissioner in cooperation with representatives and organizations with an interest in the short-term training of rehabilitation personnel;

(2) Conferences and meeting in which training is not the primary focus may not be supported;

(3) The preparation of training materials may not be supported under a grant unless the materials are essential for the conduct of the seminar, institute, workshop or other short course for which the grant support has been requested; and

(4) The Commissioner arranges for any application for a short-term training project with a national scope to receive a review in a group meeting of consultants who are not regular Federal employees and who are experienced in the training of vocational, medical,

social, or psychological rehabilitation service personnel.

**§ 1362.74 Rehabilitation research fellowships.**

(a) *What is the purpose of this program?* Under section 12(a)(2) of the Act, rehabilitation research fellowships may be awarded to individuals who wish to conduct an advanced research study in the rehabilitation of handicapped individuals or who wish to prepare for professional careers in the field of rehabilitation research.

(b) *Who is eligible to apply for Federal assistance?* Any individual currently employed in a rehabilitation program or activity and any individual who wishes to enter employment in rehabilitation research may apply for assistance.

(c) *What costs does the Federal assistance cover?* A rehabilitation research fellowship may cover:

- (1) Student or special stipends;
- (2) Tuition and fees;
- (3) Travel essential to the conduct of the research study; and
- (4) Other costs essential for the completion of the study.

(d) *How long may the Federal assistance be available?* No training or instruction (including a combination of traineeships and research fellowship awards) may be provided to an individual for any course of study extending for a period of more than 4 years.

(e) *What are the special considerations in awarding fellowships?* An individual awarded a rehabilitation research fellowship must meet all requirements specified in § 1362.70(g)(3).

**Subpart F—Helen Keller National Center for Deaf-Blind Youths and Adults**

**§ 1362.80 Terms.**

For the purpose of this subpart—

(a) "Center" means the Helen Keller National Center for Deaf-Blind Youths and Adults, including its field offices;

(b) "Deaf-blind individuals" means persons who are blind within the meaning of the law relating to vocational rehabilitation in each State and have a chronic hearing impairment so severe that most speech cannot be understood with optimum amplification. The combination of the two disabilities causes extreme difficulty for the person to attain independence in activities of daily living, psychosocial adjustment, or in the pursuit of a vocational objective; and

(c) "Grantee" means the public or nonprofit agency or organization selected as the party to the agreement to

receive funds for the construction and operation of the Helen Keller National Center for Deaf-Blind Youths and Adults.

**§ 1362.81 Purpose.**

Under section 313 of the Act, the Commissioner may enter into an agreement with any public or nonprofit agency or organization for payment of all or part of the costs of the establishment and operation, including construction and equipment, of a center for the vocational rehabilitation of deaf-blind individuals. The center shall be known as the Helen Keller National Center for Deaf-Blind Youths and Adults.

**§ 1362.82 Scope of activity.**

The scope of the agreement must cover the following areas of activity:

(a) The construction of a facility for the vocational rehabilitation of deaf-blind individuals which will be especially adapted to the needs of the deaf-blind individuals;

(b) The demonstration of methods which provide the specialized intensive vocational rehabilitation services, independent living services and other services, needed to rehabilitate deaf-blind individuals;

(c) The training of professional and allied personnel needed to staff facilities specifically designed to provide rehabilitation services and the training of personnel for serving deaf-blind individuals and for training other personnel who serve deaf-blind individuals;

(d) The conduct of research related to the problems of deaf-blind individuals and their rehabilitation, which shall be conducted in full coordination with any similar research supported under the Act;

(e) The conduct of related activities which will expand or improve the services for deaf-blind individuals; and

(f) The improvement of public understanding concerning the needs of deaf-blind individuals.

**§ 1362.83 Agreement.**

In addition to other provisions, the agreement shall provide that, to the extent feasible, the Center shall seek to recover from States, private insurers, and other participating public and private agencies the costs of services provided to individuals by the Center.

**§ 1362.84 Selection of grantee.**

The selection of the grantee will be made by the Commissioner with preference given to the application that promises:

(a) Maximum effectiveness in the organization and operation of the Center; and

(b) The most substantial staff skill, experience and capability in providing a broad program of service, research, training and related activities in the field of rehabilitation of deaf-blind individuals.

**Subpart G [Reserved]**

**Subpart H—Projects and Other Assistance for the Provision of Special Rehabilitation Services and Assistance**

**§ 1362.100 Projects for the establishment and operation of centers for independent living.**

(a) *What is the purpose of this program?* Under section 711 of the Act, grants may be made for the planning, establishment and continuing operation of centers for independent living.

(b) *What is a center for independent living?* A center for independent living is a facility which offers severely handicapped individuals a combination of independent living services such as:

- (1) Intake counseling to determine the severely handicapped individual's need for specific independent living services;
- (2) Referral and counseling services with respect to attendant care;
- (3) Attendant care and the training of personnel to provide attendant care;
- (4) Counseling and advocacy services with respect to legal and economic rights and benefits;
- (5) Peer counseling;
- (6) Independent living skills, counseling and training, including training in the maintenance of necessary equipment, training in job seeking skills, counseling on therapy needs and programs, and special independent living skill training for blind individuals or deaf individuals;
- (7) Housing and transportation referral and assistance;
- (8) Surveys, directories, and other activities to identify appropriate housing and accessible transportation and other support services;
- (9) Health maintenance programs;
- (10) Community group living arrangements;
- (11) Education and training necessary for living in the community and participating in community activities;
- (12) Individual and group social and recreational activities; and
- (13) Other programs and services, necessary to provide resources, training, counseling, services or other assistance of substantial benefit in promoting the independence, productivity and quality of life of severely handicapped individuals.

(c) *Who is eligible to apply for Federal assistance?* (1) Applications may be made by designated State units. The State unit may either directly operate a center for independent living or it may award a contract to another public or nonprofit agency or organization in the State for the purpose of operating a center or a group of centers.

(2) If a State unit has failed to submit an application within six months of the deadline date established by the Commissioner for application submittal under this program, or if a State unit has indicated at any time prior to the deadline date that it does not intend to submit an application, applications for Federal assistance may be made by local public agencies and by private nonprofit organizations within the State.

(d) *What are the matching requirements?* No minimum share is routinely required of applicants but each applicant is expected to furnish as large a part of the total project costs as possible.

(e) *What are the special project considerations under this program?* Any center for independent living established or operated under this program must:

(1) Assure that severely handicapped individuals will be substantially involved in policy direction and management of the center and, to the greatest extent possible, will be employed by the center; and

(2) Make effort to provide as many of the services identified in paragraph (b) of this section as possible.

**§ 1362.101 Grants for independent living rehabilitation services for older blind individuals.**

(a) *What do the special terms mean?* For purposes of this section—

(1) "Blind individual" means a person whose central visual acuity does not exceed 20/200 in the better eye with correcting lenses or whose visual acuity, if better than 20/200 is accompanied by a limit to the field of vision in the better eye to such a degree that its widest diameter subtends an angle no greater than 20 degrees.

(2) "Independent living rehabilitation services" when provided to older blind individuals under this program means:

(i) Services to help correct blindness such as outreach services, visual screening, surgical or therapeutic treatment to prevent, correct, or modify disabling eye conditions and hospitalization related to these services;

(ii) The provision of eyeglasses and other visual aids;

(iii) The provision of services and equipment to assist an older blind

individual to become more mobile and more able to care for himself;

(iv) Mobility training, braille instructions, and other services and equipment to help an older blind individual adjust to blindness;

(v) Guide services, reading services, and transportation;

(vi) Supportive services or rehabilitation teaching services, in such areas as home mechanics, personal management, home economics and communication skills, in order to assist an individual in adjusting to blindness and improving independent living skills; and

(vii) Any other services designed to assist an older blind individual in adjusting to blindness and coping with daily living activities within family or community.

(3) "Older blind individual" means a blind individual aged fifty-five or older whose severe visual impairment makes gainful employment extremely difficult to attain or retain but for whom the achievement of independent living rehabilitation goals is possible.

(b) *What is the purpose of this program?* Under section 721 of the Act, grants may be made to provide special programs of independent living rehabilitation services to assist in meeting immediate needs of older blind individuals in adjusting to their blindness. The design of the independent living rehabilitation services shall be sufficiently flexible to assist older blind individuals to adjust to their blindness by becoming more able to care for their individual needs.

(c) *Who is eligible to apply for assistance?* Applications for Federal grants may be made only by designated State units. Applications may be made by public or private nonprofit agencies or organizations to those designated State units which have been awarded Federal grants under this program.

(d) *What are the matching requirements?* The Federal share may not be more than 90 percent of the total project costs. In the case of a subgrant made by a designated State unit, the subgrant may not pay more than 90 percent of the total project costs.

(e) *What special assurances are required from applicants?* A designated State unit must assure that any new methods and approaches to the provision of independent living services demonstrated under this program which are determined by the Commissioner to be effective will be incorporated into the delivery of services under the State plan for independent living rehabilitation services under Part 1363.

(f) *What are the special project considerations under this program?*

When funds are used by the designated State units to make subgrants to public or private nonprofit agencies or organizations, the project must include activities which:

(1) Provide independent living rehabilitation services to older blind individuals;

(2) Improve or expand independent living rehabilitation services for older blind individuals and public understanding of the problems of older blind individuals; and

(3) Utilize service resources available in the geographical area under any related programs which are supported under authority of the Older Americans Act.

**§ 1362.102 Grants for the protection and advocacy of the rights of severely handicapped individuals.**

(a) *What is the purpose of this program?* Under section 731 of the Act, grants may be made to establish systems to protect and advocate the rights of severely handicapped individuals receiving independent living rehabilitation services under a program or project supported under Part 1363 of this chapter or under § 1362.100 or § 1362.101 of this part.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by any unit of State government which does not provide treatment, vocational rehabilitation services, or other services (other than protection and advocacy services) to handicapped individuals. The project may either be directly administered by the applicant agency or may be administered through another public or nonprofit agency or organization.

(c) *What are the matching requirements?* No minimum share is routinely required of applicants.

(d) *What are the special considerations under this program?* (1) Any system established under this program must have the authority and capacity to pursue legal, administrative, and other appropriate remedies to ensure the rights of all severely handicapped individuals receiving independent living rehabilitation services under Part 1363 of this chapter or under § 1362.100 or § 1362.101 of this part.

(2) Any system established under this program must be administratively and financially independent of any public or private nonprofit agency or organization administering an independent living rehabilitation service program for severely handicapped individuals or providing any similar treatment or rehabilitation services to such individuals.

(3) Any system established under this program must ensure and demonstrate full coordination with protection and advocacy programs established in the State under the Developmental Disabilities Assistance and Bill of Rights Act and may be administered by the same agency administering this program. The system must also ensure and demonstrate full coordination with any client assistance program established under § 1362.103 of this part.

**§ 1362.103 Client assistance projects.**

(a) *What do the special terms mean?* For purposes of this section—

(1) "Client or client applicant" means an individual who:

(i) Is seeking vocational rehabilitation services from the State agency; or

(ii) Is receiving vocational rehabilitation services from the State agency; or

(iii) Has been receiving vocational rehabilitation services from the State agency, but the provision of such services has been terminated and he or she is seeking assistance in connection with the termination of such services.

(2) "Counselor" means a client assistance worker who functions as an ombudsman.

(3) "Project area" means the geographical or administrative area served by project counselors and designed in a manner to facilitate client or client applicant accessibility to the project. A project area may be a rehabilitation facility, a State agency district office, or a special unit for a specific disability, and in some cases, may be Statewide.

(b) *What is the purpose of this program?* Under section 112 of the Act, grants may be made for the purpose of establishing client assistance projects to provide counselors to inform and advise all clients and client applicants in the project area of all available benefits and their rights in seeking these benefits under the Act. Upon request of the clients or client applicants, project counselors assist clients and client applicants in their relationships with the projects, programs, and facilities providing services to them under the Act and help them to pursue legal, administrative, and other appropriate remedies available to ensure the protection of their rights under the Act.

(c) *Who is eligible to apply for Federal assistance?* Applications must be submitted only by State agencies. The State agency may directly administer the project or it may administer the project through public or nonprofit agency or organization.

(d) *What are the matching requirements?* No minimum share is routinely required of applicants.

(e) *What costs does the Federal assistance cover?* In addition to generally allowable project costs, Federal financial participation may also be available for costs of client, client applicant, or attendant travel in connection with the provision of assistance under a project.

(f) *What are responsibilities of counselors employed in these projects?* Counselors employed within projects under this section are responsible for:

(1) Helping clients or client applicants to understand the vocational rehabilitation services program;

(2) Advising clients or client applicants of benefits available to them under the vocational rehabilitation program and related Federal and State assistance programs, and their rights and responsibilities in connection with these benefits;

(3) Otherwise assisting clients and client applicants in their relationships with projects, programs, and facilities providing vocational rehabilitation services under the Act;

(4) Referring clients or client applicants for assistance in pursuing legal, administrative and other remedies available to insure the protection of the rights of handicapped individuals under the Act; and

(5) Advising State agencies of identified problem areas in the delivery of vocational rehabilitation services to handicapped individuals and suggesting methods and means of improving State agency performance.

(g) *What are the special project considerations under this program.* Each applicant must assure that:

(1) No project employee may be a person who is presently serving as staff or consultant, or who is receiving benefits of any kind directly or indirectly from any rehabilitation project, program, or facility assisted under the Act in the project area, except for individuals receiving traineeships under Subpart E of this part;

(2) The project director will have direct access to the director of the designated State unit of the State agency and shall report directly to the director or his designate if the project is administered directly by the State agency. The project director shall be expected to participate in all policy and program development activities affecting the conduct of the project and shall be assured of access to any field office affected by the project;

(3) All clients or client applicants within the project area will have the

opportunity to receive adequate client assistance services under the project;

(4) Project activities will be fully coordinated with other programs and activities carried out under this Act and under the Developmental Disabilities Assistance and Bill of Rights Act related to the protection and advocacy of the rights of handicapped persons and there shall be written agreements with these other programs in order to define the extent of the coordinated effort;

(5) Maximum effort will be made to enter into cooperative arrangements with institutions of higher education to secure the services of graduate students who are undergoing clinical training in rehabilitation related fields, and in fields related to the protection and advocacy of handicapped individuals, except that no compensation with funds appropriated under the Act will be provided to such students in connection with their participation in a project under this program;

(6) A counselor under this program will be able to participate in any administrative review of agency action, or any fair hearing conducted in connection with a client or client applicant being assisted under this program; and

(7) The project will contain an evaluative component to measure its effectiveness.

**§ 1362.104 Project grants for interpreter services for deaf individuals.**

(a) *What is the purpose of this program?* Under section 315 of the Act grants may be made to establish within each State a program of interpreter services for deaf individuals which may include a resource for the referral of such services. These services may be made available directly to deaf individuals and to any public agency or private nonprofit organization which is involved in providing assistance or services to deaf individuals.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by designated State units.

(c) *What costs does the Federal assistance cover?* (1) In addition to generally allowable project costs, Federal financial participation may also be available for the purchase or rental of special telephone amplification, and other devices for deaf persons.

(2) Federal financial participation may not be available for any administrative or related costs incurred by a designated State unit in the administration of the State's vocational rehabilitation program. Funds may also not be used for the provision of interpreter services to a deaf individual who is receiving vocational rehabilitation services under

Part 1361 of this chapter or independent living services under Part 1363 of this chapter unless the interpreter services are in connection with an essential activity not directly involved in the individual's rehabilitation or are provided in connection with providing access to other agencies or organizations which serve deaf individuals.

(d) *What are the special project considerations under this program?* (1) Each program must be operated in areas within the State which are specifically selected to provide convenient access to services by the maximum number of deaf individuals;

(2) Each program must include a plan for coordinating all interpreter referral services with the information and referral programs carried out by the State unit under § 1361.20 under the State plan for vocational rehabilitation services;

(3) Each program must seek to the greatest extent possible to enter into contractual or other arrangements with private nonprofit organizations comprised primarily of deaf or hearing impaired individuals, or private nonprofit organizations which have the primary purpose of providing assistance or services to deaf or hearing impaired individuals, for the operation of the program;

(4) All interpreters participating in the program must be individuals knowledgeable in the basic principles and the code of ethics of interpreting for deaf persons and who have been certified by a national organization recognized by the Commissioner, who meet standards for interpreters which have been established by a recognized State agency or organization, or who are currently undertaking training in order to meet these established standards;

(5) No deaf individual who is being provided interpreter services will be required to pay for these services;

(6) Any State unit operating a program under this section may provide interpreter services without cost for a maximum period of one year to any public or private nonprofit organization which provides assistance to deaf individuals. After that time, however, those agencies or organizations receiving services must be required to pay the designated State unit for the costs of any additional interpreter services which are provided;

(7) To the extent possible and needed, a program will provided tactile interpretation for deaf individuals who are also blind.

#### § 1362.105 Special projects for the training of interpreters for the deaf.

(a) *What is the purpose of the program?* Under section 304(d) of the Act, the Secretary, through the Office of Information and Resources for the Handicapped, may make grants to establish additional training programs for interpreters for the deaf or to assist in the support of existing training programs for interpreters for the deaf. No more than twelve programs may be established or assisted under the this program.

(b) *Who is eligible to apply for a grant?* Applications may be made by any public or private nonprofit agency or organization or post secondary institution.

(c) *What costs does the Federal grant cover?*

(1) In addition to generally allowable project costs, Federal financial participation may also be available for:

- (i) Student stipends;
- (ii) Tuition and fees; and
- (iii) Student travel.

(2) Reimbursement of indirect costs will not exceed 8 percent of the amount allowed for direct costs, exclusive of permanent equipment, rental of space, building alteration or renovation, subagreements (except for procurements), tuition and fees.

(d) *What are the special project considerations under this program?*

(1) All training supported under this program must be directed towards enabling individuals to be trained or retrained to meet the standards for manual or oral interpreting for deaf individuals, which have been established by the Secretary.

(2) Where appropriate, special training activities supported under this program must be coordinated with related training projects which may contribute to the overall success of the program. The training or retraining of teachers who work with deaf students, but who are not certified teachers of the deaf, may be provided in the area of special communication skills for use with deaf students, through short-term training or in-service training but, if provided through in-service training, it must be supported only through funds appropriated under the Education for All Handicapped Children Act.

(3) Priority in the awarding of grants is given to public or private nonprofit agencies or organizations which are currently operating effective training programs for interpreters for the deaf and which have the potential for training in a multi-State geographical area.

#### § 1362.106 Projects for reading services for blind individuals.

(a) *What do the special terms mean?* For purposes of this section—

(1) "Blind individual" means a person whose central visual acuity does not exceed 20/200 in the better eye with correcting lenses or whose visual acuity, if better than 20/200, is accomplished by a limit to the field of vision in the better eye to such a degree that its widest diameter subtends an angle of no greater than 20 degrees. For purposes of this program, an individual who is both deaf and blind shall be considered to be a blind individual.

(2) "Agency or organization of national scope" means an agency or organization which conducts its programs of activity throughout the country.

(b) *What is the purpose of this program?* Under section 314 of the Act grants may be made for the purpose of:

- (1) Providing reading services to blind individuals who are not otherwise eligible or potentially eligible for those reading services which are available through other State or Federal programs;
- (2) Expanding the quality and scope of reading services available to blind individuals without regard to financial need; and

(3) Assuring to the maximum extent possible that adequate reading services are provided to blind individuals who are enrolled in educational institutions at all levels and who require reading services to enter employment and to continue in employment.

(c) *Who is eligible to apply for Federal assistance?* Applications may be made by States and by private nonprofit agencies or organizations of national scope. Any State conducting a reading service program under this section shall administer the program through the designated State unit.

(d) *What is the scope of reading services which may be provided?* Reading services for blind individuals may include:

(1) The employment of persons to read aloud to blind individuals from printed materials;

(2) The transcription of printed information into braille or sound recordings at the special request of a blind individual;

(3) The acquisition, storage, retrieval, and distribution of braille materials and sound recordings;

(4) The purpose, storage, and distribution of equipment and materials necessary for the production, duplication, and reproduction of braille materials and sound recordings;

(5) The purpose, storage, and distribution of equipment to blind

individuals in order to provide them with individual access to printed materials in auditory or tactual modes by mechanical or electronic means;

(6) Radio reading services for educational and rehabilitation purposes for blind individuals; and

(7) The employment of persons to read tactually from printed materials to blind individuals who are also deaf.

(e) *What are the special project considerations under this program?* (1) When the full scope of reading services cannot be provided under a project, priority is expected to be given to those reading services directly related to preparing for and retaining employment;

(2) To the maximum extent possible, project activities must be coordinated with related ongoing programs being undertaken in the project service area;

(3) No blind individual who is being provided reading services will be required to pay for these services; and

(4) Any blind individual provided services under this program will be given the opportunity to select any person to be hired to read directly to him or her.

**§ 1362.107 Business opportunities for handicapped individuals.**

(a) *What is the purpose of this program?* Under section 622 of the Act, grants may be made, or contracts may be awarded, to enable handicapped individuals to establish or operate commercial or other enterprises which develop, manufacture, produce, or market specified products or services.

(b) *Who is eligible to apply for Federal assistance?* Any handicapped individual who has been certified as eligible by a State unit may be awarded a grant or a contract under this program. If two or more handicapped individuals wish to receive assistance in order to establish or operate an enterprise jointly or under a cooperative arrangement, they must all be certified by the State unit.

(c) *What costs does the Federal assistance cover?* Federal financial participation may be available only for those costs specified and approved in each grant or contract award. These costs may cover any investment in either fixed or moveable property, including equipment and machinery, stocks and supplies, necessary working capital, services of individuals needed in connection with the preparation of the business plan, technical and consultative assistance intended to improve the capability of the handicapped individual or individuals to establish or operate the enterprise, and the purchase of any additional goods or services necessary to establish or

operate the enterprise. The total amount of assistance which may be provided to establish or operate any enterprise may not be more than \$100,000 during the entire period of Federal support.

(d) *What types of enterprises are included?* A handicapped individual may be assisted under this program to establish or operate any type of commercial or other enterprise, including a cooperative enterprise, which appears to offer promise of profitable operation. The enterprise may be in any sector of the economy such as construction, manufacturing, retail or wholesale sales, services, transportation, or agriculture. For purposes of this program, "enterprise" means any commercial, industrial, agricultural, service, or other business activity which is 100 percent owned, established, organized and operated by a handicapped individual or a group of handicapped individuals for the purpose of profit.

(e) *How is an individual certified as eligible by a State unit for vocational rehabilitation?* (1) To participate in this program an individual must contact the State unit of the State vocational rehabilitation agency to indicate interest in being certified as eligible. The individual must advise the State unit of the general type of enterprise which he or she wishes to establish or operate.

(2) When certification is requested by a handicapped individual who is currently being provided vocational rehabilitation services, the State unit reviews his or her record to determine the individual's potential capacity to establish or operate an enterprise of the general type being considered. If the individual has not been provided vocational rehabilitation services by a designated State unit in the past, or if previous vocational rehabilitation services cannot be considered fully relevant to the request for certification, the State unit reviews any related material available from its own files or from the files of other agencies or other sources. If additional information is needed, the State unit performs any diagnostic studies necessary to determine whether the individual is in fact a handicapped individual and to assess his or her overall capacity for establishing or operating an enterprise of the general type proposed.

(3) When the State unit determines that the handicapped individual has the potential capacity to establish or operate an enterprise of the general type proposed, it certifies the individual as eligible and advises the individual in writing within 60 days of the request for certification. The State unit also advises the handicapped individual of the

availability of its staff to assist in preparing and submitting an application for Federal assistance, including any application for loan assistance being submitted to the Small Business Administration.

(4) When the State unit determines that any handicapped individual does not have the capacity to establish or operate an enterprise, the State unit advises the individual in writing within 60 days of the request for certification and will inform the individual of the reasons for this determination. In such a case, the State unit also advises the individual of the opportunity available for an administrative review of agency action and, if necessary, a fair hearing under § 1361.48.

(5) The State unit continues to provide vocational rehabilitation services to any handicapped individual currently receiving services under an individualized written rehabilitation program. In the case of a handicapped individual not previously provided rehabilitation services, the State unit will provide an opportunity for initiating these services within State policies governing the order of selection of handicapped individuals to receive vocational rehabilitation services.

(f) *How does an individual apply for Federal assistance?* (1) A handicapped individual who has been certified as eligible for participation in this program and wishes to request Federal assistance must submit an application in the form and detail required by the Commissioner. The application must include the comprehensive business plan for the enterprise which specifies the costs expected to be incurred the period for which the Federal assistance is being requested. The application must also indicate whether a loan has been requested from the Small Business Administration or from other capital sources, the purpose and amount of any requested loan, and what action was taken on each request.

(2) The handicapped individual must attach to the application a copy of the certification of eligibility from the State unit.

(g) *Is the handicapped individual required to invest in the cost of the enterprise?* A handicapped individual receiving assistance will not routinely be required to contribute any specific proportion of the cost of establishing or operating the enterprise. As determined to be appropriate in each case, however, the Commissioner may refer the individual to the Small Business Administration if an application for a loan from that office has not already been submitted; or he may require the handicapped individual to contribute to

the establishment or operation of the enterprise from personal assets; or he may request the individual to use personal funds and anticipated Federal funds to attract other capital. The specific amount expected to be contributed by any handicapped individual will be negotiated at the time of the award.

(h) *How are awards made?* The Commissioner makes awards under this program in consultation with the Secretary of Labor and the Secretary of Commerce. The Commissioner may also arrange for the Small Business Administration, another Federal agency, a State or local agency or organization, or a qualified individual to advise on the soundness of the business plan and the likelihood of its successful establishment or operation.

(i) *What factors will be considered in making awards?* In making awards under this program, the Commissioner considers such factors as:

- (1) The qualifications and experience of the applicant;
- (2) The merit of the comprehensive business plan submitted by the handicapped individual;
- (3) The availability of funds from other private and public resources and the extent to which these other funds are being used;
- (4) The prevailing business and market conditions affecting the type of enterprise to be established or operated in the geographical area and the potential market for its products or services;
- (5) The severity of the disability of the handicapped individual requesting assistance;
- (6) The financial need of the handicapped individual requesting assistance;
- (7) The extent to which handicapped individuals might benefit from the planned enterprise;
- (8) The extent to which handicapped individuals might be employed within the planned enterprise;
- (9) The extent to which the planned enterprise might offer an opportunity for replication by other handicapped individuals in other parts of the country; and
- (10) The geographical distribution of enterprises assisted under this program throughout the country.

(j) *Do the funds have to be repaid?* There is no requirement that funds awarded under this program be repaid to the Federal Government. If the handicapped individual should cease to operate the enterprise for any reason during the period of Federal support, any funds or real assets remaining after all outstanding debts have been paid are

returned to the Commissioner in an amount proportional to the Federal investment in the total costs of the establishment or operation of the enterprise.

(k) *Will any report be required?* The Commissioner requires progress reports from time to time from a handicapped individual establishing or operating an enterprise under this program. A final report, including an independent audit of the enterprise, is required 90 days after the completion of the period of Federal support.

**§ 1362.108 Special projects and demonstrations for making recreation activities accessible to handicapped individuals.**

(a) *What is the purpose of this program?* Under section 311(a)(3) of the Act, grants may be made for special projects and demonstrations, and related research and evaluation concerned with operating programs to demonstrate methods of making recreation activities fully accessible to handicapped individuals, including the renovation and construction of facilities where appropriate.

(b) *Who is eligible to apply for assistance?* Applications may be made by States and public and other nonprofit agencies and organizations.

(c) *What are the matching requirements.* Grants may be made for paying all or part of the costs of activities covered under this program. Where part of the costs is to be borne by the grantee, the amount of grantee participation is determined at the time of the grant award and is generally not less than 10 percent of the total cost of the project.

(d) *What costs does the Federal assistance cover?* In addition to generally allowable project costs, Federal financial participation may also be available for those costs specified in § 1362.51(d) in the case of any project which involves the renovation or construction of a facility.

(e) *Is an evaluative component required?* All projects and demonstrations supported under this program must contain an evaluative component to measure overall project effectiveness.

(f) *What are the special project considerations under this program?* Approved projects must:

(1) Demonstrate innovative ways in which recreation services and activities can be made fully accessible to handicapped individuals, with special emphasis on those who are the most severely handicapped;

(2) Focus on as broad a range of recreation activities as is appropriate to

the geographical area, including indoor and outdoor recreation activities; competitive, active, and quiet recreation activities; social activities; and recreation activities related to the fine arts. These activities may include but are not limited to, arts, camping, dance, drama, fitness, 4-H, scouting, sports, travel and other related recreation activities;

(3) Provide for a schedule of recreation activities which does not interfere with a handicapped individual's attendance at work or school;

(4) Utilize existing facilities for the provision of recreation activities to the greatest extent possible; and

(5) Ensure that any renovation or construction of facilities shall conform with the requirements specified under § 1362.8 and with any other requirements of the Department in effect concerning Federally assisted building design and construction activities.

**§ 1362.109 Project grants for the initiation of special recreation programs for handicapped individuals.**

(a) *What is the purpose of this program?* Under section 316 of the Act, grants may be made for the initiation of special programs to provide handicapped individuals with recreation activities which can be expected to aid in their mobility and socialization.

(b) *Who is eligible to apply for Federal assistance?* Applications may be made by States and other public nonprofit agencies and organizations.

(c) *What are the matching requirements?* Although there is no minimum share required of applications under this program, the applicant is expected to furnish as large a part of the total project cost as possible and to furnish an increasing share of the project costs in each succeeding year of the project period.

(d) *How long may the Federal assistance be available?* A project may be approved for a maximum project period of 5 years. The project period may not be extended beyond the initial 5 year period.

(e) *What are the special project considerations under this program?* (1) Activities carried out under this program must include as broad a range of recreation activities as is appropriate to the geographical area, including indoor and outdoor recreation activities; competitive, active, and quiet recreation activities; social activities; and recreation activities related to the fine arts. These activities may include, but are not limited to, arts, camping, dance, drama, 4-H, fitness, scouting, sports,

travel and related recreation activities designed;

(i) To promote personal satisfaction;  
(ii) To provide equal recreation opportunity;

(iii) To provide normalization experiences;

(iv) To foster social interaction and physical and mental health; and

(v) To provide individualized rehabilitation and therapeutic activities to alleviate the effects of disabilities.

(2) The schedule of recreation activities must be arranged so as not to interfere with a handicapped individual's attendance at work or school.

(3) To the greatest extent possible, existing facilities and resources must be used to provide the recreation activities and must utilize existing community recreation programs or service resources available under any related programs in the geographical area which are supported or authorized under the Development Disabilities Assistance and Bill of Rights Act, the Education for all Handicapped Children Act, the National Endowment of the Arts and Humanities Act of 1965, Title XX of the Social Security Act, the Community Education Act, and the Historic Preservation Fund and Land and Water Conservation Fund.

(4) Recreation services provided under this program must be provided in a manner consistent with the provisions of similar services under Part 1361 of this chapter.

#### § 1362.110 Technical assistance.

(a) Under section 12 and section 506 of the Act, the Commissioner may provide, directly or by contract with State vocational rehabilitation agencies or experts or consultants or groups thereof, technical assistance and consultation:

(1) To a public or other, nonprofit rehabilitation facility in matters of professional or business practice within the facility; or

(2) With the concurrence of the Architectural and Transportation Barriers Compliance Board, to a public or other nonprofit agency, institution, organization, or facility in matters concerning the removal of architectural, transportation, or communication barriers.

(b) *What types of reports are required?* A rehabilitation facility or public or nonprofit agency, institution, organization or facility which receives technical assistance consultations must be furnished with the recommendations of the consultant. A copy of the recommendations must also be furnished to the appropriate State agency. The rehabilitation facility or public or nonprofit agency, institution,

organization or facility receiving the technical assistance will be expected to provide a prompt report to the Commissioner concerning the consultation and a report 6 months afterwards as to what has been done about the recommendations.

3. A new Part 1363 is added to Chapter XIII to read as follows:

### **PART 1363—THE STATE INDEPENDENT LIVING REHABILITATION SERVICES PROGRAM**

#### **Subpart A—Definitions**

Sec.

1363.1 Terms

#### **Subpart B—State Plans for Independent Living Rehabilitation Services**

##### **State Plan Content: Administration**

- 1363.2 The State plan: General requirements.  
1363.3 Review of State plan by Governor.  
1363.4 State plan approval and disapproval.  
1363.5 Withholding of funds.  
1363.6 State unit for administration.  
1363.7 Staffing of designated State unit.  
1363.8 Staff development.  
1363.9 State unit studies and evaluations.  
1363.10 State plan and policy development consultation.  
1363.11 Provision of technical assistance in poverty areas.  
1363.12 Cooperation with other public agencies.  
1363.13 Utilization of local public and private non-profit agencies, organizations, and facilities.  
1363.14 Independent living services for older blind individuals.  
1363.15 Reports.  
1363.16 Other administrative and fiscal requirements.

##### **State Plan Content: Provision and Scope of Service**

- 1363.30 Processing referrals and applications.  
1363.31 Eligibility.  
1363.32 Determination of eligibility for independent living rehabilitation services.  
1363.33 Certification of eligibility or ineligibility.  
1363.34 Order of selection for services.  
1363.35 The case record for the individual.  
1363.36 The individualized written rehabilitation program for independent living rehabilitation services.  
1363.37 Scope of State unit program; independent living rehabilitation services for individuals.  
1363.38 Case closure.  
1363.39 Duration.  
1363.40 Standard for facilities and providers of services.  
1363.41 Scope of State unit program: Establishment and construction of rehabilitation facilities.  
1363.42 Scope of State unit program: Facilities and services for groups of severely handicapped individuals.

Sec.

1363.43 Scope of State unit program: Telecommunications systems and special materials for blind individuals and deaf individuals.

#### **Subpart C—Allotment and Payment**

1363.44 Allotment of Federal funds for independent living services.

1363.45 Payments from allotments for independent living services.

Authority: Section 12(c) of the Rehabilitation Act of 1973, (29 U.S.C. 711(c)).

#### **Subpart A—Definitions**

##### **§ 1363.1 Terms.**

The following terms were defined in § 1361.1 of this Chapter:

"Act"  
"Blind"  
"Commissioner"  
"Construction of a rehabilitation facility"  
"Designated State unit"  
"Establishment of a rehabilitation facility"  
"Nonprofit"  
"Physical and mental restoration services"  
"Physical or mental disability"  
"Rehabilitation facility"  
"Secretary"  
"State"  
"State unit"  
"Vocational rehabilitation services"

The following new terms are used in this part:

"Attendant care" means the assistance provided to a severely handicapped individual in performing a variety of tasks required to meet essential personal needs in such areas as bathing, communicating, cooking, dressing, eating, homemaking, toileting, and transportation.

"Health maintenance" means the provision of those health care services which are necessary for a severely handicapped individual to maintain or improve his or her functional capabilities and those services which might contribute to avoiding complications or reactivations of the severely handicapped impairment or the development of additional impairments.

"Independent living rehabilitation services," or "independent living services," when provided to a severely handicapped individual, means those services listed in § 1363.37.

"Independent living rehabilitation services," or "independent living services" when provided for the benefit of groups of severely handicapped individuals, includes:

(a) The establishment or construction of a rehabilitation facility which provides independent living services to individuals;

(b) The provision of other facilities and services which promise to

contribute substantially to the independent living rehabilitation of a group of severely handicapped individuals but which are not related directly to the individualized written rehabilitation program of any one severely handicapped individual;

(c) The use of existing telecommunications systems; and

(d) The use of services providing recorded materials for blind individuals and captioned films or videocassettes for deaf individuals.

"Severely handicapped individual" means an individual whose ability to function independently in family or community, or whose ability to engage or continue in employment is so limited by the severity of his or her physical or mental disability that independent living rehabilitation services appreciably more costly and of appreciably greater duration than vocational rehabilitation services which might be provided under Part 1361 are required in order to enable achieving a greater level of independence in functioning in family or community or engaging or continuing in employment.

"State plan" means the State plan for independent living rehabilitation services.

"Transportation" means necessary travel in connection with a severely handicapped individual's engaging or maintaining employment or improving his or her ability to carry out independent living activities within family or community.

## Subpart B—State Plans for Independent Living Rehabilitation Services

### State Plan Content: Administration

#### § 1363.2 The State plan: General requirements.

(a) *Purpose.* In order for a State to be eligible for grants from the allotment of funds under Title VII of the Act, it must submit an approvable State plan for providing independent living rehabilitation services to severely handicapped individuals.

(b) *Form and content.* The State plan must contain, in the form prescribed by the Commissioner, a description of the State's independent living rehabilitation program, the plans and policies to be followed in carrying out the program, and other information requested by the Commissioner.

(c) *Consolidated rehabilitation plan.* The State may choose to submit a consolidated rehabilitation plan which includes both the State plan for vocational rehabilitation services and the State plan for independent living rehabilitation services. The State may

also choose to submit a consolidated plan which includes either or both of the State's rehabilitation plans and the State's plan for services for persons with developmental disabilities developed under the Developmental Disabilities Assistance and Bill of Rights Act.

(d) *Duration.* The State plan must cover a three-year period and must be amended whenever necessary to reflect any material change in any applicable phase of State law, organization, policy or agency operations which affects the administration of the State plan.

#### § 1363.3 Review of State plan by Governor.

The State unit must submit the State plan to the State Governor for review and comments. The Governor is given an opportunity to review and comment on all State plan amendments and on long-range program planning projections or other periodic reports, except for periodic statistical or budget and other fiscal reports. The Office of the Governor has 45 days to review this material. The State submits any comments to the Commissioner with the documents.

#### § 1363.4 State plan approval and disapproval.

(a) *State plan approval.* Except in the case of the first State plan submitted under Title VII, the State plan must be submitted for approval no later than July 1 of the year preceding the first fiscal year of the three-year period for which the State plan is submitted. The Commissioner approves any State plan or amendment meeting the requirements of the Act and of this part.

(b) *State plan disapproval.* The Commissioner does not disapprove any State plan or modification, until reasonable effort has been made to resolve any problem and the State has been given reasonable notice and opportunity for a hearing.

#### § 1363.5 Withholding of funds.

(a) *When withheld.* Payments under section 704 of the Act may be withheld, suspended, or limited as provided by section 101(c) of the Act, when after a reasonable notice and opportunity for hearing has been given to the designated State unit, the Commissioner finds that:

(1) The State plan has been so changed that it no longer conforms with the requirements of section 705 of the Act, or

(2) In the administration of the State plan, there is a failure to comply substantially with any provision of such plan.

(b) *Notification of State unit.* The designated State unit is notified of the decision.

(c) *Judicial review.* The decision to withhold, suspend, or limit payments described in paragraph (a) of this section may be appealed to the United States Court of Appeals for the Circuit in which the State is located in accordance with section 101(d)(1) of the Act.

(d) *Informal discussions.* Hearings meeting the requirements of § 1361.5(d) of this chapter are not called until after reasonable effort has been made to resolve the questions involved by conference and discussion with State officials.

#### § 1363.6 State unit for administration.

(a) *Designation of State unit.* The State plan must provide that the designated State unit administers the State's independent living rehabilitation service program conducted under this part.

(b) *Designation of State unit for the blind.* The State plan may designate a State commission for the blind or another agency of the State which is authorized under State law to provide vocational rehabilitation services to blind individuals under a State plan for vocational rehabilitation services, as the State unit to administer that part of the plan under which independent living services are provided to blind individuals.

(c) *Responsibility for administration.* The State plan must assure that all decisions affecting eligibility for, the nature and scope of available independent living rehabilitation services and the provision of these services are made by the designated State unit, and that this responsibility may not be delegated to any other agency, facility, or individual.

#### § 1363.7 Staffing of designated State unit.

(a) *General staffing requirement.* The State plan must assure that the staff of the designated State unit includes specialist personnel skilled in the coordination and provision of independent living services and similar services to severely handicapped individuals.

(b) *Special communication needs staffing.* The State plan must also assure that the State unit makes available personnel able to communicate with severely handicapped individuals who rely on special modes of communication, such as manual communication or nonverbal communication devices, and personnel able to communicate in the native languages of severely handicapped individuals with limited

English-speaking ability from ethnic groups which represent substantial segments of the population of the communities in which the services are being provided.

**§ 1363.8 Staff development.**

The State plan must assure a program of staff development for all classes of positions involved in providing independent living services within the designated State unit. The staff development program must emphasize improving the skills of staff directly responsible for the provision of independent living services.

**§ 1363.9 State unit studies and evaluations.**

(a) *Scope of studies.* The State plan must assure that the State conducts studies of the independent living rehabilitation service needs of severely handicapped individuals within the State, including comparative studies of the different methods for providing these services, such as regional and community centers, centers for independent living, halfway houses, and patient-release programs. The State plan must also assure that the State conducts studies to determine effective alternatives to institutionalization. Any studies carried out under the plan must fully utilize findings from relevant studies which have been conducted in the past.

(b) *Evaluations.* The State plan must assure that the State conducts evaluations of the effectiveness of the State unit's independent living rehabilitation program in meeting the service needs of severely handicapped individuals in the State. These evaluations must measure the adequacy of State unit performance in providing independent living services to severely handicapped individuals, in the light of program and financial resources available in the State.

(c) *Use of findings.* The State plan must also assure that findings from the State's studies and evaluations are utilized in planning for and improving future independent living services.

(d) *Availability of reports.* Reports of studies and evaluations must be available to the public for review and inspection.

**§ 1363.10 State plan and policy development consultation.**

(a) *Advisory committee.* The State plan must assure that the State unit organizes a committee of severely physically and mentally handicapped persons, which may include parents or guardians of severely handicapped persons as necessary, to consult on a

continuing basis in the initial development and periodic revision of the State plan. The members of the advisory committee must serve on a rotating basis after severely handicapped persons in the State have been provided an opportunity to suggest those individuals considered by them to be best qualified to represent severely handicapped individuals in need of independent living services. The State plan must assure that this committee periodically consults with the State unit in matters of policy and program development and implementation which affect the overall administration of the State's independent living rehabilitation service program. The committee must also participate actively in the periodic evaluations of the State's independent living rehabilitation service program.

(b) *Other consultations.* The State plan must also assure that that is a procedure for taking into account the views of providers of independent living services and other individuals interested in services for severely handicapped individuals.

**§ 1363.11 Provision of technical assistance in poverty areas.**

The State plan must assure that the State unit undertakes special efforts to provide technical assistance to public and other nonprofit agencies and organizations located in areas of urban or rural poverty which are interested in developing capability for providing independent living services. The State must annually report those special efforts which have been undertaken in this regard.

**§ 1363.12 Cooperation with other public agencies.**

The State plan must assure that, to the greatest extent possible, the designated State unit enters into cooperative arrangements with, and utilize the services and facilities of, other public agencies which provide services to severely handicapped individuals, including those agencies administering the State's special education, vocational education, and developmental disabilities service programs, public health, mental health, and mental retardation programs, housing, and transportation programs, Veterans Administration programs, and the programs authorized under Title XIX and Title XX of the Social Security Act.

**§ 1363.13 Utilization of local public and private nonprofit agencies, organizations, and facilities.**

(a) *General provisions.* The State plan must assure that the State unit utilizes local public and private nonprofit agencies, organizations, and facilities,

as appropriate, to provide independent living services. The State plan must describe the methods and criteria to be used to ensure the appropriate use by the State unit of these local agencies, organizations, and facilities, including entering into agreements with them or making direct grants to them for providing independent living services.

(b) *Special requirements for State unit grantees.* Any agency, organization, or facility awarded a grant by the State unit must assure that severely handicapped individuals are fully involved in policy and program development activities affecting the provision of independent living rehabilitation services. Any agency, organization, or facility awarded a grant by a State unit must also assure that any services provided under the grant are at least of the same quality as services provided directly by the State unit.

(c) *Grants from State units.* At least 20 per cent of the funds received by a State under this part must be used to make grants to local public agencies and private nonprofit organizations for the conduct of independent living service programs. The State plan must assure that the State unit makes the availability of funds known to potential applicants within the State and identifies the criteria against which applications for grant funds are evaluated. These criteria must provide priority in the awarding of funds to those agencies and organizations which are directed and managed to a substantial degree by severely handicapped individuals.

(d) *Waiver of grants by State units.* The designated State unit may request from the Commissioner a waiver of the requirement that grants in the amount required under paragraph (c) of this section be made for any fiscal year when there is sufficient evidence to determine that the local agencies and organizations cannot use the funds effectively. In waiving this requirement, the Commissioner considers such factors as the number of agencies and organizations which have indicated an interest in applying for funds, the capability of these agencies and organizations, and the efforts which have been made by the State unit to improve the capacity of the agencies and organizations for conducting independent living rehabilitation service programs.

(e) *Priority for State unit clients.* When a program of independent living rehabilitation services is conducted by a local public agency or a private nonprofit organization, the program must be designed primarily to serve those severely handicapped individuals who have been determined by the State

unit to be eligible for independent living services under the State plan.

(f) *State unit plans under related funding programs.* The State plan must specify the State's goals and plans with respect to the distribution of any Federal funds received for the establishment and operation of independent living centers under § 1362.110 of this chapter. The State plan must further indicate whether the State unit will directly apply for independent living center grants or whether local public agencies or private nonprofit organizations in the State will have the opportunity to apply for Federal funds under § 1362.110 of this chapter.

**§ 1363.14 Independent living services for older blind individuals.**

The State plan must assure that the State unit seeks to incorporate within its program of services any new methods or approaches to the provision of independent living rehabilitation services to older blind individuals which have been demonstrated to be effective under a special project under § 1362.111 (Grants for independent living services for older blind individuals) or § 1362.40 (Special projects and demonstrations; improved services to severely handicapped individuals) of this chapter. The Commissioner advises the State unit when the results of a special project have been found to be effective and requires that they be integrated within the State program to the extent feasible.

**§ 1363.15 Reports.**

The State plan must assure that the State unit submits reports in the form and detail and at the time required by the Commissioner, and complies with any requirements necessary to assure the correctness and verification of these reports.

**§ 1363.16 Other administrative and fiscal requirements.**

(a) *Applicability of vocational rehabilitation regulations.* Certain regulations covering the State plan for vocational rehabilitation services also apply under this part for purposes of the State plan for independent living rehabilitation services. These regulations include:

§ 1361.11 Methods of administration.

§ 1361.16 Standards of personnel administration

§ 1361.25 General administrative and fiscal requirements (except as provided in paragraph (b) of this section relative to Part 74).

§ 1361.44 Authorization of services.

§ 1361.47 Participation by handicapped individuals in the costs of vocational rehabilitation services.

§ 1361.48 Administrative review of agency action, and fair hearing; review by Secretary.

§ 1361.49 Protection, use, and disclosure of personal information.

§ 1361.76 State and local funds.

**Subpart G—Procedures for Hearings on State Plan Conformity and Compliance.**

(b) *Applicability of Part 74.* The provisions of Part 74 of this title, establishing uniform administrative requirements and cost principles, also apply to all grants made under this part.

(c) *Program administration.* Federal financial participation is available in expenditures under the State plan for the provision of services and for program planning, development, evaluation, and control; research; advocacy; interpretation of the program to the public; personnel administration, including the administration of affirmative action plans; use of advisory committees; the removal of architectural barriers in State agency offices and facilities; program accreditation; and training and staff development for State unit personnel. All expenditures in which Federal financial participation is claimed under the State plan must be subject to the administrative or supervisory control of the designated State unit.

**State Plan Content: Provision and Scope of Service**

**§ 1363.30 Processing referrals and applications.**

The State plan must assure that the State unit establishes and maintains written standards and procedures to assure expeditious and equitable handling of referrals and applications from severely handicapped individuals for independent living services.

**§ 1363.31 Eligibility.**

(a) *General provisions.* (1) The State plan must assure that eligibility requirements are applied by the designated State unit without regard to sex, race, creed, color, or national origin of the individual applying for service. The State plan must specify that no group of individuals is excluded from service solely on the basis of the type of disability or on the basis of age.

(2) The State plan must assure that no residence requirement is imposed which excludes from services under the plan any individual who is present in the State.

(b) *Basic conditions.* The State plan must assure that eligibility is based only upon:

(1) The presence of a severe physical or mental disability;

(2) The presence of a severe limitation in ability to function independently in

family or community or to engage or continue in employment; and

(3) There is a reasonable expectation that independent living rehabilitation services will significantly assist the individual to improve his or her ability to function independently in family or community or to engage or continue in employment. For purposes of determining an individual's eligibility for independent living services, improvement in ability to function independently in family or community refers to a demonstration in functional and behavioral terms of an individual's greater independence or maintenance of independence in such areas as self-care, activities of daily living, driving, using public transportation, shopping, housekeeping, communicating, or living more independently.

**§ 1363.32 Determination of eligibility for independent living rehabilitation services.**

(a) *General provisions.* The State plan must assure that the State unit conducts an evaluation of each severely handicapped individual who applies for independent living services. This evaluation is limited to that information necessary to determine whether the individual is eligible to be provided independent living services and takes into consideration any relevant case record materials available from files of the designated State unit or from the files of other agencies. A special diagnostic study is conducted specifically for purposes of determining eligibility for independent living services only if already available information is not complete, relevant, or current.

(b) *Scope of evaluation.* The State plan must also assure that the evaluation is sufficient in scope to determine which services will best meet the current and future needs of the individual for functioning more independently in family or community or engaging or continuing in employment.

**§ 1363.33 Certification of eligibility or ineligibility.**

(a) *Certification of eligibility.* The State plan must assure that, before or at the same time as acceptance of a severely handicapped individual for independent living rehabilitation services, there must be a certification that the individual has met the basic requirements specified in § 1363.31. The State plan must also assure that the certification is dated and signed by an appropriate staff member of the designated State unit.

(b) *Certification of ineligibility.*

(1) The State plan must assure that whenever it is determined that

independent living services cannot be expected to assist an individual to engage or continue in employment or to function more independently in family or community, there must be a certification dated and signed by an appropriate staff member of the State unit.

(2) The State plan must also assure that the certification indicates the reasons for the ineligibility determination and is made only after full consultation with the individual or, as appropriate, his or her parent, guardian, or other representative, or after giving a clear opportunity for this consultation. In this case, the State unit notifies the individual in writing of the action taken and informs the individual of his or her rights and the means by which he or she may express and seek remedy for any dissatisfactions, including procedures for administrative review and fair hearings. When appropriate, the individual is provided a detailed explanation of the availability of the resources within a protection and advocacy project established within the State under § 1362.102 and referral is made to other agencies and facilities, including the State's vocational rehabilitation program under Part 1361 of this chapter.

(3) The State plan must also assure that when an applicant for independent living services has been certified as ineligible because of a determination that these services cannot be expected to assist the individual to engage or continue in employment or to function more independently in family or community, the individual's current status will be reviewed no later than 12 months after the determination has been made. The review need not be conducted in situations where the individual has refused the review, the individual is no longer present in the State, or the individual's whereabouts are unknown.

#### § 1363.34 Order of selection for services.

The State plan must show the order to be followed in selecting groups of severely handicapped individuals eligible to be provided independent living rehabilitation services when these services cannot be provided to all persons who apply. The State plan must assure that first priority is given to those severely handicapped individuals, including homebound individuals, who are not presently receiving vocational rehabilitation services under the State vocational rehabilitation service program under Part 1361 because of the severity of their physical or mental disability, and those severely handicapped individuals who are

institutionalized, have been institutionalized in the past, or are at risk of becoming institutionalized. The State plan must also assure that priority is given to other groups of severely handicapped individuals identified by the Commissioner from time to time.

#### § 1363.35 The case record for the individual.

The State plan must assure that the State unit maintains for each applicant for independent living services and for each individual receiving these services, a case record which includes documentation concerning the individual's eligibility for service and the provision and payment for services. The State plan must assure that a review of the progress of each severely handicapped individual being served is carried out at least annually to determine whether services should be continued, modified, or discontinued, or whether the individual should be referred to a program of vocational rehabilitation services under Part 1361 or to any other program of assistance. The case record must indicate the findings of these periodic reviews.

#### § 1363.36 The individualized written rehabilitation program for independent living rehabilitation services.

(a) *General provision.* The State plan must assure that an individualized written rehabilitation program is initiated and periodically updated for each severely handicapped individual provided independent living rehabilitation services. The State plan must also assure that each independent living service is provided in accordance with the written program. The individualized written rehabilitation program must be developed jointly by the appropriate staff member of the State unit and the severely handicapped individual or, as appropriate his or her parent, guardian or other representative. A copy of the written program, and any amendments, must be provided to the severely handicapped individual or, as appropriate, his or her parent, guardian or other representative.

(b) *Initiation of program.* The individualized written rehabilitation program must be initiated after certification of eligibility under § 1363.33 and must indicate the goals established for each individual, the services to be provided, and the anticipated duration of the service program and each component service.

(c) *Review.* The State plan must assure that the individualized written program will be reviewed as often as necessary but at least on an annual basis. Each severely handicapped

individual, or, as appropriate, his or her parent, guardian or other representative must be given an opportunity to review the program and, if necessary, jointly redevelop and agree by signature to its terms.

(d) *Review of ineligibility determination.* The State plan must assure that if services are to be terminated under a written program for any reason, the following conditions and procedures must be met or carried out:

(1) This decision is made only with the full participation of the individual, or, as appropriate, his or her parent, guardian, or other representative, unless the individual has refused to participate, the individual is no longer present in the State, or his or her whereabouts are unknown. When the full participation of the individual or a representative of the individual has been secured in making this decision, the views of the individual are recorded in the individualized written rehabilitation program;

(2) The rationale for the ineligibility decision is recorded as an amendment to the individualized written rehabilitation program certifying that the provision of independent living services has demonstrated that the individual is not capable of functioning more independently in family or community or engaging or continuing in employment. A certification of ineligibility under § 1363.33 is then executed;

(3) There is a periodic review, at least annually of the ineligibility decision in which the individual is given opportunity for full consultation in the reconsideration of the decision, except in situations where a periodic review would be precluded because the individual has refused services or has refused a periodic review, the individual is no longer present in the State, or his or her whereabouts are unknown; and

(4) There is a periodic review of determinations made by the designated State unit, in addition to those concerning eligibility, at the request of the severely handicapped individual, his or her parent, guardian, or other representative.

(e) *Coordination with vocational rehabilitation, developmental disabilities and education programs.* The development of the individualized written rehabilitation program for independent living services and the provision of these services must be coordinated to the maximum extent possible with the individualized written rehabilitation program for vocational rehabilitation services for that individual, if there is such a written program. This must also be coordinated with any individualized written

rehabilitation program for the individual prepared under the Developmental Disabilities Assistance and Bill of Rights Act or with any individualized written education program for the individual prepared under Part B of the Education for Handicapped Children Act.

**§ 1363.37 Scope of State unit program; independent living rehabilitation services for individuals.**

(a) *Scope of services.* The State plan must assure that, as appropriate to meeting the independent living rehabilitation service needs of any severely handicapped individual, the following independent living rehabilitation services may be available:

- (1) Counseling services, including psychological counseling, psychotherapeutic counseling, peer counseling, and related services;
- (2) Housing incidental to the provision of any independent living rehabilitation service, and including appropriate accommodations to, and modifications of, any space utilized to serve severely handicapped individuals;
- (3) Physical and mental restoration services, including:
  - (i) Physical and mental medical rehabilitation services;
  - (ii) Dentistry services;
  - (iii) Nursing services;
  - (iv) Therapeutic treatment, such as physical therapy, occupational therapy, speech, language and hearing therapy, therapeutic recreation, drama therapy, music therapy and art therapy;
  - (v) Health maintenance;
  - (vi) Eyeglasses and visual services; and
  - (vii) Prosthetic, orthotic and other assistive appliances and devices.
- (4) Attendant care;
- (5) Transportation;
- (6) Interpreter services for deaf individuals, including tactile interpretation for deaf-blind individuals;
- (7) Reading services, rehabilitation teaching services, and orientation and mobility services for blind individuals;
- (8) Recreational activities;
- (9) Services to members of a severely handicapped individual's family when necessary for improving the individual's ability to live and function more independently, or the individual's ability to engage or continue in employment;
- (10) Vocational and other training services, including personal and vocational adjustment when necessary for improving a severely handicapped individual's ability to live and function more independently, or his or her ability to engage or continue in employment;
- (11) Job placement services;
- (12) Referral services;

(13) Telecommunications, sensory and other technological aids and devices;

(14) Services for children of pre-school age including physical therapy, development of language and communication skills, and child development services;

(15) Any other vocational rehabilitation services available under the State plan for vocational rehabilitation services under Part 1361 of this chapter, which are appropriate to the independent living rehabilitation needs of a severely handicapped individual; and

(16) Any appropriate preventive services necessary to decrease the future needs of a severely handicapped individual assisted under this program for similar services.

(b) *Written policies.* The State plan must also assure that the State unit establishes and maintains written policies covering the quality, scope, and extent of each of the independent living services listed in paragraph (a) of this section which is to be provided under the State program, and the conditions, criteria, and procedures under which the service is to be provided. These policies must assure that when services are being provided to assist a severely handicapped individual to continue or engage in employment, the services must be provided under Part 1361 if the individual is also eligible for vocational rehabilitation services.

**§ 1363.38 Case closure.**

The State plan must assure that when the objectives of the individualized written rehabilitation program are achieved, there is a record describing the way in which the severely handicapped individual has benefited from independent living rehabilitation services and has significantly improved his ability to engage or continue in employment or his ability to function independently in his family or community.

**§ 1363.39 Duration.**

The State plan must assure that no uniform durational requirement is imposed. The estimated duration of each service must be recorded for each individual under an individualized written rehabilitation program.

**§ 1363.40 Standards for facilities and providers of services.**

The State plan must assure that the State unit maintains written standards for the various types of facilities and providers of services utilized by the State unit in providing independent living services to severely handicapped individuals. The designated State unit

must assure that providers of service meet all licensure or certification requirements in the State. The State unit must also assure that any facilities used in connection with the delivery of services under this program meet the standards specified in the Architectural Barriers Act of 1968 and, the "American Standard Specification for Making Buildings and Facilities Accessible to, and Usable by the Physically Handicapped," No A117.1-1961, as amended, and its implementation standards, 41 CFR Part 101-19.6 et seq.

**§ 1363.41 Scope of State unit program; Establishment and construction of rehabilitation facilities.**

If the State plan provides for the establishment and construction of rehabilitation facilities which provide independent living services, it must further assure that the primary purpose of the establishment or construction of any facility is to provide independent living rehabilitation services to severely handicapped individuals under this part. The provisions of § 1361.51 and § 1361.52 concerning the establishment and construction of rehabilitation facilities under the State plan for vocational rehabilitation services also apply.

**§ 1363.42 Scope of State unit program; Facilities and services for groups of severely handicapped individuals.**

The State plan may provide for facilities and services which may be expected to contribute substantially to the rehabilitation of a group of severely handicapped individuals but which are not related directly to the individualized rehabilitation program of any one individual. If the State plan includes these facilities and services, it must further assure that the State unit establishes and maintains written policies covering their provision.

**§ 1363.43 Scope of State unit program; Telecommunications systems and special materials for blind individuals and deaf individuals.**

The State plan may provide for the use of existing telecommunications systems which have the potential for substantially improving independent living rehabilitation service delivery methods and the delivery of appropriate programming to meet the particular needs of severely handicapped individuals. The State plan may also provide for the use of special services available to provide recorded material for blind individuals and captioned television, films or video cassettes for deaf individuals. If the State plan includes these services, it must further assure that the States unit shall

establish and maintain written policies covering their provision.

#### **Subpart C—Allotment and Payment**

##### **§ 1363.44 Allotment of Federal funds for independent living services.**

(a) The allotment of Federal funds for independent living services for each State is computed in accordance with the requirements of section 703 of the Act.

(b) Where the State plan designates separate agencies to administer the part of the plan under which independent living rehabilitation services are provided for blind individuals, and the rest of the plan, respectively, the division of the State's allotment is a matter for State determination.

##### **§ 1363.45 Payments from allotments for independent living services.**

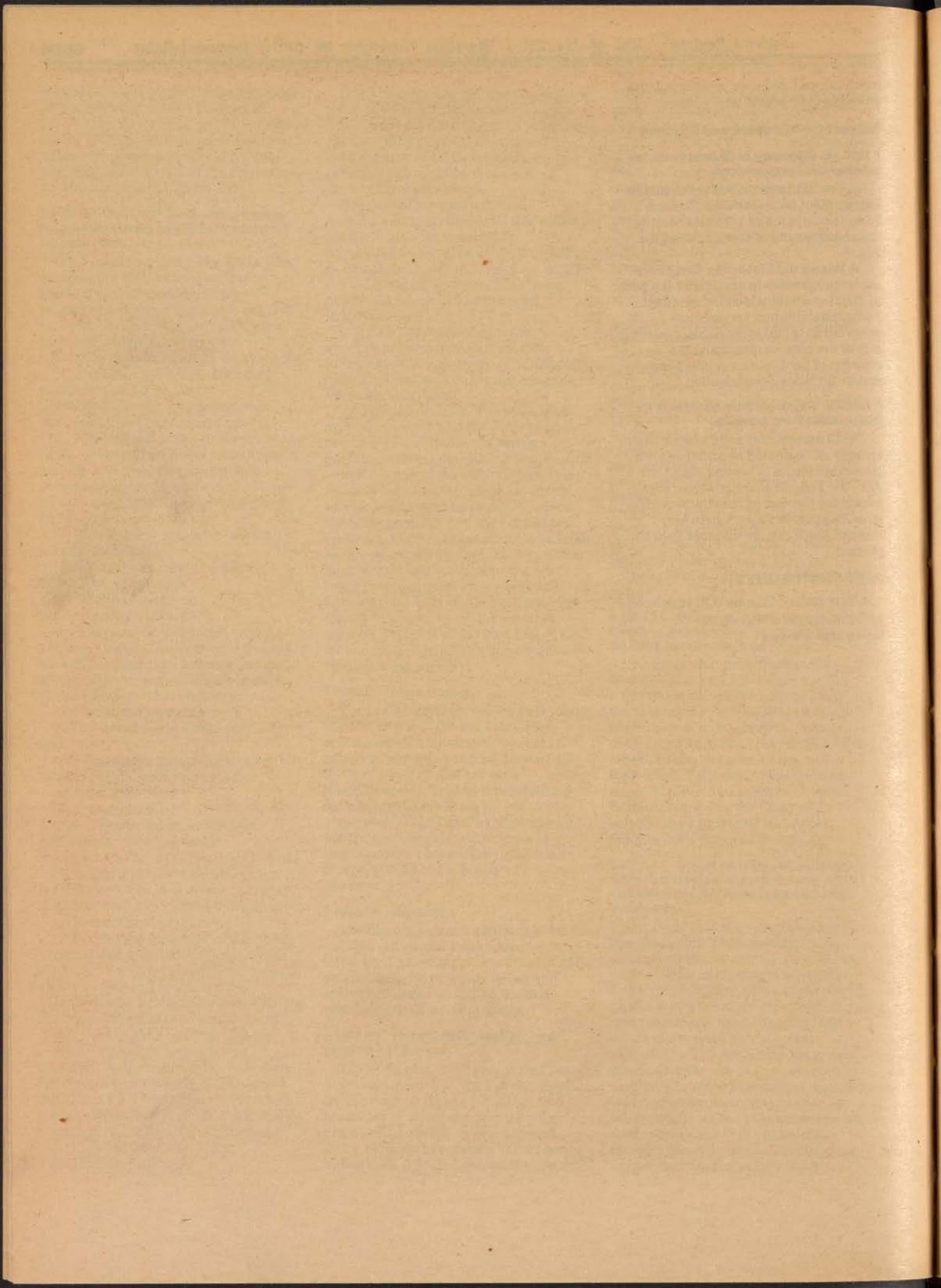
The Commissioner pays to each State an amount computed accordance with the requirements of section 704 of the Act. The Federal share is 90 percent except for the cost of construction of rehabilitation facilities where the Federal share may be no more than 50 percent.

#### **PART 1370 [DELETED]**

4. Part 1370 of Chapter XIII is deleted.

[FR Doc. 79-36437 Filed 11-28-79; 8:45 am]

BILLING CODE 4110-92-M



# **federal register**

---

Thursday  
November 29, 1979

---

Part III

## **Environmental Protection Agency**

---

National Interim Primary Drinking Water  
Regulations; Control of Trihalomethanes in  
Drinking Water; Final Rule

**ENVIRONMENTAL PROTECTION  
AGENCY**
**40 CFR Part 141**
**[FRL 1312-2]**
**National Interim Primary Drinking  
Water Regulations; Control of  
Trihalomethanes in Drinking Water**
**AGENCY:** Environmental Protection  
Agency (EPA).

**ACTION:** Final Rule.

**SUMMARY:** This amendment to the National Interim Primary Drinking Water Regulations establishes a Maximum Contaminant Level (MCL) of 0.10 mg/l and associated monitoring and reporting requirements for total trihalomethanes (TTHMs), including chloroform, that are introduced into drinking water by the reaction of naturally occurring substances with chlorine in the course of water treatment. The proposed requirement to utilize granular activated carbon (GAC) or equivalent technology in those public water systems subject to significant contamination by synthetic organic chemicals has been separated from this promulgation and will be repropounded for additional public comment in the near future.

**EFFECTIVE DATES:** For community water systems serving 75,000 or more persons, monitoring must begin 1 year following promulgation and the effective date of the MCL is 2 years following promulgation. For community water systems serving 10,000 to 75,000 persons, monitoring must begin within 3 years from the date of promulgation and the effective date of the MCL is 4 years from the date of promulgation. Effective immediately, systems that plan to make significant modifications to their treatment processes for the purpose of complying with the TTHM MCL are required to seek and obtain State approval of their treatment modification plans.

**FOR FURTHER INFORMATION CONTACT:** Joseph A. Cotruvo, Director, Criteria and Standards Division, Office of Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. (202-472-5016).

**SUPPLEMENTARY INFORMATION:**
**History of Rulemaking**

On July 14, 1976, EPA published an Advance Notice of Proposed Rulemaking (ANPRM), entitled "Control Options for Organic Chemicals in Drinking Water" (41 FR 28991 *et seq.*). The ANPRM summarized the many

facets of the issue of organic chemicals in drinking water including the legislative background, health effects data, the state of available control technology and costs. Advantages and disadvantages of various regulatory and non-regulatory options were examined, and the ANPRM solicited comments and information regarding the problem and options presented. On February 9, 1978, the EPA published a proposed rule (43 FR 5756, *et seq.*) To amend the National Interim Primary Drinking Water Regulations to include an MCL and associated monitoring and reporting requirements for TTHMs. At the same time, a requirement for the use of GAC or equivalent technology was proposed for application to those drinking water sources subject to significant contamination by synthetic organic chemicals of industrial origin. Subsequently, on July 6, 1978, EPA published a Supplemental Notice of Proposed Rulemaking (43 FR 29135, *et seq.*) soliciting comment on EPA's reassessment of the economic impact analysis for the proposal, providing additional documentation in support of the proposal, clarifying certain aspects concerning the effects of organic chemicals in drinking water, and extending the public comment period from July 31, 1978, to September 1, 1978.

The two Federal Register Notice preambles and the supporting documentation cited therein provided a detailed discussion of EPA's rationale for proposing controls on organic chemicals in drinking water. The subjects covered included: assessments of the sources and occurrences of, and human exposure to, TTHMs and other organic chemicals in drinking water; discussion of the toxicology and epidemiology studies that relate to possible human health risks; rationale for the selection of the MCL for TTHMs and associated requirements; and a discussion of the control technology, economic impact and air pollution and energy impacts of the proposal. EPA's analyses of these subjects have been revised to incorporate information gained during the public comment period.

A total of 598 written comments were received in response to the proposed regulations of which 391 addressed the subject of TTHMs. In a number of cases the commenters confused the two different regulations being proposed for organic chemical control. For example, some commenters incorrectly assumed that GAC was proposed as the requirement for control of TTHMs and objected accordingly.

Public hearings were held between March and July, 1978, in Miami, Florida; New Orleans, Louisiana; Boston, Massachusetts; Los Angeles, California; St. Louis, Missouri; Louisville, Kentucky; Washington, D.C. and Dallas, Texas. A total of 259 witnesses testified at the public hearings, and of these, 157 commented on the proposed regulations for TTHMs. Commenters included water utilities, state and local officials, public interest groups, federal health regulatory and research agencies, engineering consulting firms and individual citizens and scientists. In addition, there were 496 communications from members of Congress, and both the House and Senate Appropriations Committees, and the Council on Wage and Price Stability offered comments on the proposed regulations. The National Drinking Water Advisory Council was also consulted for their comments on the regulations. A number of the comments were duplicative, in that often the same persons or organizations submitted both written and oral comments and such comments often induced inquiries from members of Congress on the same subject. EPA has thoroughly considered all comments received in formulating the final regulations. A detailed breakdown of the comments and the Agency's responses to them are attached as Appendices.

**Legal Authority**

These final regulations are issued under the authority of the Safe Drinking Water Act, as amended (SDWA), 42 U.S.C. 300f *et seq.*, specifically, sections 1401, 1412, 1445 and 1450. They constitute amendments to the National Interim Primary Drinking Water Regulations (NIPDWR), 40 CFR Part 141, as authorized by Section 1412(a)(1).

As noted in the preamble to the proposed regulations (43 FR at 5759), EPA considered establishing these regulations as Revised Primary Drinking Water Regulations but concluded that they would be more appropriate as amendments to the NIPDWR. This means that the feasibility of control measures under the NIPDWR must be adjudged to have been available as of December, 1974, when the SDWA was enacted. As prescribed by Section 1412(a)(2), these Interim Regulations protect health to the extent feasible, using technology, treatment techniques, and other means which the Administrator determines are generally available (taking costs into consideration) on the date of enactment (of the SDWA).

Although Congress clearly contemplated the comprehensive control of organic chemical contaminants in the

Revised Regulations, the statute nowhere precludes EPA from establishing requirements as amendments to the Interim regulations even after the issuance of the report of the National Academy of Sciences under Section 1412(e). The statute does not require that all regulations subsequent to the NAS report be issued as Revised Regulations. All that is required is that the applicable statutory criteria be met. Given Congress' early concern with the presence of organic chemicals in drinking water, the availability of control measures to reduce the level of TTHMs to 0.10 mg/l since 1974, and EPA's finding that TTHMs "may have an adverse effect on the health of persons," amending the Interim Regulations to include these requirements as a first step toward controlling organic chemical contaminants in drinking water is clearly authorized at this time.

On February 10, 1978, one day after the publication of EPA's proposal in this rulemaking in the *Federal Register*, the United States Court of Appeals for the District of Columbia Circuit issued its opinion in *Environmental Defense Fund v. Costle*, No. 75-2224, 578 F.2d 337. In that case, EDF sought more comprehensive control by EPA of organic chemicals in the NIPDWR that were promulgated in December 1975. Following a review of the statutory provisions and the legislative history regarding the scope of the Interim Regulations, the Court found that EPA could exercise a degree of administrative discretion in deciding whether to control organic chemical contaminants under the NIPDWR. The Court also stated:

As we have indicated above, we believe the legislature contemplated that the interim regulations would, where feasible, control every contaminant that may prove injurious to health. The failure of the challenged regulations to do so thus becomes suspect. In light of the clear language of the legislative history, the incomplete state of our knowledge regarding the health effects of certain contaminants and the imperfect nature of the available measurement and treatment techniques cannot serve as justification for delay in controlling contaminants that may be harmful. (578 F.2d at 345).

The Court deferred final resolution of the issue by remanding the record to EPA for a report regarding "significant changes that have occurred, since the promulgation of the interim regulations, in (EPA's) assessment of the problem of controlling organic contaminants in drinking water," and to advise the Court "as to whether it plans to propose amended interim regulations in light of newly acquired data" (emphasis added)

(578 F.2d at 346). This evidenced the Court's recognition that amendments to the Interim Regulations were not restricted to mere modifications to existing requirements, as argued by one commenter. Following EPA's submission of its February 9, 1978, proposed regulations, the Court affirmed EPA's earlier rulemaking action without prejudice to the filing by EDF of a petition to review any action or inaction of the EPA concerning proposed regulations dealing with organic contaminants and without prejudice to the filing by EDF of a motion to recall the mandate should circumstances warrant such action. (Court's order, dated July 14, 1978). These final regulations directly address the Court's concerns as they were set forth in that opinion.

#### Summary of the Regulations

Section 141.12 of the Interim Regulations has been amended to add a new maximum contaminant level of 0.10 mg/l for TTHMs. TTHMs in § 141.2 are defined as the arithmetic sum of the concentrations of the TTHM compounds (trichloromethane (chloroform), dibromochloromethane, bromodichloromethane and tribromomethane (bromoform)) rounded to two significant figures. This MCL is applicable to all community water systems serving 10,000 or more persons that add a disinfectant to their treatment process. The effective dates of the MCL are specified at § 141.6 as two years from the date of promulgation for those systems serving a population of 75,000 persons or more and four years from the date of promulgation for those systems serving a population of 10,000 to 75,000. At this time, systems serving fewer than 10,000 persons are not covered by these regulations unless States exercise their discretion and expand their coverage to these smallest systems.

Under new Section 141.30, systems serving 75,000 or more persons are required to begin monitoring within one year from the date of promulgation of this regulation and systems serving from 10,000 to 75,000 persons are required to begin monitoring within three years from the date of promulgation. No monitoring is required for systems serving fewer than 10,000 persons under the federal regulations, but the States may extend coverage at their discretion.

The minimum total number of samples required to be taken by the system is required to be determined on a per plant basis, with the exception that wells drawing raw water from a single aquifer may, with State approval, be considered on treatment plant. Thus, if a system has only one treatment plant, the minimum

number of samples is four samples per quarter; if it has two treatment plants, the minimum is eight samples per quarter; if it has three treatment plants, the minimum is twelve samples per quarter. All samples taken at the established frequency (e.g., quarterly, annually) must be collected on the same day.

Community water systems using surface sources and systems using ground water sources are, at a minimum, required to monitor for TTHMs at quarterly intervals, with a minimum of four samples each quarter for each treatment plant used by the system. Each quarter, the system's sampling scheme must insure that at least 25% of the samples are taken at locations within the distribution system reflecting maximum residence time of the water in the system, and that no more than 75% of the samples are taken at other representative locations within the distribution system. In selecting representative sampling locations for TTHM monitoring, the regulations provide that the system shall take into account the number of persons served, source of raw water and treatment methods used. To the extent possible, representative sampling for systems with more than one treatment plant should reflect the distributed water from each plant separately.

Systems are further required to average the results of all analyses performed per quarter and to report the results to the State, and to EPA if such monitoring requirements have not yet been adopted by the State with primary enforcement responsibility. All samples collected must be used in computing the average, unless the analytical results are invalidated for technical reasons by a responsible official. Compliance will then be determined based upon a running annual average of the quarterly samples.

The regulations also provide that this sampling frequency of four samples for TTHMs per quarter per year may be reduced by the State to a minimum of one sample for TTHMs per quarter per year (for each plant used by the system) if, after the system has monitored for at least one full year in accordance with the original schedule, it can demonstrate to the State that the water it serves is consistently below the TTHM MCL of 0.10 mg/l. This minimum single TTHM sample must be taken at a point in the distribution system that reflects maximum residence time to insure adequate protection. The system would be required to immediately revert back to the "four samples per quarter" sampling frequency if the single TTHM

sample exceeds the standard and such results have been confirmed by at least one check sample, or in the event of any significant change in its source of water or treatment program. The system must continue such program for at least one year before it could be eligible for reduced monitoring again. The regulations also authorize the States (and EPA, where the State does not have primary enforcement responsibility) to increase the monitoring frequencies at their discretion where such is deemed necessary and appropriate to insure consistent compliance with the MCL throughout the distribution system.

Special consideration is given in the regulations to community water systems which draw their water exclusively from groundwater sources by allowing them to have their monitoring requirements reduced by the State at the outset based upon a judgment by the State that such systems are not likely to be subject to TTHM contamination. The regulations require that such a system must demonstrate to the satisfaction of the State based on at least one sample for each treatment plant used by the system that it has a maximum total trihalomethane potential (MTP) of less than 0.10 mg/l. Thus, if the results from at least one MTP sample are less than 0.10 mg/l and after an examination of local conditions, the State may reduce the monitoring requirements of such a ground water system to not less than one sample for MTP per year. "Maximum total trihalomethane potential" is defined under new § 141.2(s). Any system using exclusively groundwater sources whose MTP is equal to or greater than 0.10 mg/l, which results have been confirmed by a check sample, must comply with the four TTHM samples per quarter per year requirement for at least one full year. Thereafter, the monitoring may be reduced by the State to one TTHM sample per quarter if the TTHM levels are consistently less than 0.10 mg/l, or to one MTP sample per year if the MTP is shown to be less than 0.10 mg/l.

Systems are required to report to the State (and EPA until the State adopts these regulations) the results of each quarterly sampling within 30 days of receipt of such results. Once the MCL takes effect, public notification as well as reporting to the State is required whenever the running average of quarterly samples during the previous 12 months indicates that the MCL of 0.10 mg/l has been exceeded.

To ensure the continued microbiological quality of the drinking water as TTHM levels are being

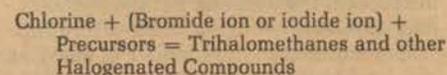
reduced, water systems are required to seek and receive State approval of their plans to make significant modifications to their treatment processes. State approval shall be conditional upon inclusion of additional monitoring and other requirements prescribed by the State to assure microbiological quality in accordance with the guidance provided by EPA. Finally, analyses must be performed by approved laboratories and in accordance with EPA specified methods.

#### *Trihalomethanes*

As explained in the preamble to the proposed regulations, the THMs found in drinking water are members of the family of organohalogen compounds which are named as derivatives of methane, where three of the four hydrogen atoms have been replaced by three atoms of chlorine, bromine or iodine. Ten distinct compounds are possible by various combinations of three halogenated atoms, one hydrogen and carbon atom. Current analytical methodology applied to drinking has thus far detected chloroform (trichloromethane), bromodichloromethane, dibromochloromethane, bromoform (tribromomethane) and dichloriodomethane and monitoring methods are currently available for the brominated and chlorinated THMs but not the iodinated THMs because of chemical instability.

The principal source of chloroform and other trihalomethanes in drinking water is the chemical interaction of the chlorine added for disinfection and other purposes with the commonly present natural humic and fulvic substances and other precursors. The actual levels of TTHMs in drinking water, however, will vary depending upon the season, chlorine contact time, water temperature, pH, type and chemical composition of raw water and treatment methodology. Since the natural organic precursors are more commonly found in surface waters, water taken from a surface source is more likely than ground water (with notable exceptions) to produce high THM levels.

Generally, the THM producing reaction is as follows:



Chloroform is the most common THM found in drinking water and it is also usually present in the highest concentration. In a number of cases, the concentrations of the brominated THMs were found to far exceed the chloroform

concentrations. The mixed THMs appear to form by way of an initial oxidation of bromide ion in solution by added chlorine, followed by rapid bromination of the organic precursors. Bromine and chloroform may also be introduced as contaminants of chlorine.

Chloroform and other THMs were first reported in drinking water in late 1974. EPA initiated the National Organics Reconnaissance Survey (NORS) of 80 water utilities, which confirmed that THMs were being formed during chlorination in drinking water treatment process. Concentrations in finished water appeared to be roughly related to the amounts of natural chemicals present in the water.

In late 1975, EPA initiated the National Organics Monitoring Survey (NOMS) in 113 cities. The NOMS demonstrated that considerable amounts of THMs could form in the water after it has entered the distribution systems on the way to the consumer's tap. It also showed that THMs far exceeded the concentrations of other synthetic organic contaminants in finished drinking water, and that brominated THMs could also exceed the chloroform concentrations. Other studies have shown that the TTHMs are only a portion of the chlorinated chemicals generated in water after chlorination. Additional information is contained in EPA's "Statement of Basis and Purpose" accompanying this regulation.

#### *Review of Major Issues*

During this rule-making, EPA specifically solicited and received comments on the following major issues: The rationale for setting an MCL for TTHMs and the magnitude of the MCL; the feasibility of and timing for phased reduction of the MCL; the concept of phasing the application of the MCL based upon system size; an alternative of making the MCL applicable to all public water systems and to phase the implementation by a deferred monitoring schedule linked to population size; the method for determining compliance, including the number, frequency and location of sampling sites and the averaging of results; the availability of technology to achieve compliance, and the need for restrictions to assure that biologically safe water would be maintained in the course of achieving TTHM reduction; and the costs incurred by public water systems to achieve compliance with the MCL.

#### *Magnitude and Rationale for the MCL*

These final regulations adopt unchanged EPA's proposed MCL for

TTHMs of 0.10 mg/l. The majority of commenters responding to this issue felt that setting an MCL of 0.10 mg/l for TTHMs lacked supporting justification, both in terms of establishment of the need for a regulation to protect public health and also the numerical value that was proposed, while others supported the proposed MCL and some recommended that a lower MCL be selected. Many argued that an unenforceable goal instead of an MCL should be established, or that the MCL should be higher than 0.10 mg/l.

The Coalition for Safe Drinking Water (CSDW), a member organization of both municipal and investor-owned water utilities formed specifically to comment on EPA's proposed regulations, recommended that an MCL be established only for chloroform and that the MCL should be no lower than 0.3 mg/l. The CSDW presented a number of witnesses at the various public hearings and submitted voluminous written comments on the THM regulation. Among the arguments presented were: That chloroform is not known to be a human carcinogen; that other THMs are not known to be animal carcinogens; that the bioassay of chloroform conducted by the National Cancer Institute was flawed; that a threshold level could be established for carcinogenic risk; that the epidemiological studies purporting to indicate human risk were flawed or misinterpreted; that the cancer risks from chloroform could be considerably lower than those computed using the conservative linear or multi-stage models. One (Roe) stated that chloroform might be beneficial. EPA evaluated the CSDW's comments but found their arguments unpersuasive. A detailed analysis of the CSDW's comments is contained in EPA's response to comments, Appendix A. A summary of their specific comments is presented in Appendix B.

Comments from the National Cancer Institute (NCI), National Academy of Sciences (NAS), the National Drinking Water Advisory Council (NDWAC), the National Institute of Environmental Health Sciences (NIEHS) and federal regulatory agencies such as the Occupational Safety and Health Administration (OSHA), Food and Drug Administration (FDA) and the Consumer Product Safety Commission (CPSC), generally supported EPA's proposal. A summary of their specific comments is presented in Appendix B. They stated that sufficient scientific evidence had been accumulated to conclude that chloroform is an animal carcinogen as shown from a properly conducted

bioassay and should be presumed to be a risk to humans and that, as such, prudent public health policy warrants reasonable measures to reduce human exposure. The NDWAC also specifically concurred with the 0.10 mg/l MCL proposal for TTHM. The Environmental Defense Fund (EDF) suggested that a lower MCL would be feasible.

EPA's decision to regulate THM levels in drinking water is based on a number of factors which were extensively discussed in the preambles to its proposal notices of February 9 and July 6, 1978. They include, in summary, the potential human health risks of chloroform and other THMs; the fact that drinking water is the major source of human exposure to THMs; the fact that THMs are the most ubiquitous synthetic organic chemicals found in drinking water in the U.S. and are generally found at the highest concentrations of any such chemicals; the fact that THMs are introduced in the course of water treatment as by-products of the chlorination process and thus are readily controllable; that low cost and feasible means have been generally available since 1974 to reduce their concentrations in drinking water; that monitoring is feasible; and that the THMs are also indicative of the presence of a host of other halogenated and oxidized, potentially harmful by-products of the chlorination process that are concurrently formed in even larger quantities but which cannot be readily characterized chemically.

In concluding that exposure to THMs in drinking water poses a human health risk, EPA followed the four principles on human risk assessment set forth in the 1977 report of the National Academy of Sciences, "Drinking Water and Health," which EPA feels are representative of the consensus of scientific opinion. As stated in the proposal, they are as follows:

1. Effects in animals, properly qualified, are applicable to man.
2. Methods do not now exist to establish a threshold for long-term effects of toxic agents.
3. Exposure of experimental animals to toxic agents in high doses is a necessary and valid method of discovering possible carcinogenic hazards in man.
4. Material should be assessed in terms of human risk, rather than as "safe" or "unsafe."

In the specific case of chloroform and other THMs, EPA has relied primarily on animal studies demonstrating the toxicology of chloroform. These are described in the NAS report, "Drinking Water and Health", and in the "Statement of Basis and Purpose"

accompanying this regulation. The bioassay results from studies conducted by the NCI have demonstrated the carcinogenicity of chloroform in both rats and mice. Dr. Arthur Upton, Director of NCI, concluded in his comments that chloroform and other chemicals have been "proven as carcinogens in bioassays." Mechanisms for the metabolism and toxicity of chloroform are being investigated and include information demonstrating covalent binding of chloroform metabolites to DNA and the probable intermediate formation of phosgene as a metabolite.

EPA has also concluded that the available epidemiological evidence relative to THM concentrations or other drinking water quality factors and cancer morbidity/mortality has not been conclusive but is hypothesis generating and at least suggestive of a health risk. The NAS in its review of 13 preliminary epidemiological studies affirmed EPA's interpretation and concluded that the risks were probably small but that important confounding factors could not be distinguished in indirect ecological studies to allow a precise evaluation of the contributions from THMs. They pointed out the lack of sensitivity of epidemiological procedures due to lack of exposure data for individuals, population diversity and mobility, inability to control for all known contributing variables such as smoking, occupational exposures, diet, alcohol consumption, socio-economic and urbanization factors, and the usual 20-40 year latency period required for most cancers. The NAS also pointed out that sufficient evidence was available from animal toxicology studies to conclude that exposure to chloroform did pose a risk to human health. Additional studies are underway. Since epidemiology *per se* cannot "prove" causality, and because it may well be impossible to epidemiologically establish a strong causal association that THMs and related chemicals in drinking water contribute to higher cancer rates, EPA has extrapolated from the results of animal studies to assess the risk posed by THMs to humans.

EPA has also concluded that it would be inappropriate at this time to distinguish between an MCL for chloroform and other THMs. As a family of compounds, the THMs are similar in chemical composition and nature and are formed concurrently during the chlorination of drinking water. Brominated THM levels greater than 0.6 mg/l have been detected in some drinking waters. Their relative distribution in finished water is a

function of the organic and halide precursor concentrations which can be highly variable and unpredictable. The other THMs are under further study in the NCI bioassay program because of human exposure and structural similarity to chloroform. Mutagenicity studies in *Salmonella typhimurium* bacterial test systems have shown that brominated and iodinated THMs are more mutagenic than chloroform. The gas chromatographic analytical method concurrently analyses all four THMs, and treatment methods that would be employed would simultaneously reduce all of the THMs.

Excluding brominated THMs from these regulations would permit a substantial number of communities with low chloroform levels, but otherwise high THM and other by-product contamination, to avoid any improvement of treatment practice and, by implication, water quality.

Even though the toxicology of each of the other THMs has not at this time been as thoroughly studied by the scientific community as chloroform, the available toxicological information, their structural similarities to chloroform, and the fact that effective treatment is generally available to reduce public exposure to these potentially harmful contaminants as well as for chloroform, leads EPA to conclude that it would be inappropriate to exclude them from regulation.

Commenters had suggested that an MCL of 0.30 mg/l for chloroform could be computed as a "safe" level for human consumption by incorporating an uncertainty factor of 2,000 into Roe's "no observed effect dose." EPA has concluded that such an approach is totally inappropriate when dealing with human risk from chronic exposure to a potential carcinogen. That approach assumes the existence of a threshold level for carcinogens below which no risk would exist. It is thus inconsistent with the principles stated by the NAS in "Drinking Water and Health." In addition, 0.30 mg/l is well above the levels that are currently achievable in the large majority of public water systems by generally available methods that are technically and economically feasible. The comment was rejected. These comments and the Agency responses are detailed in Appendix A.

Because of the technical inability to determine a "safe" level for a carcinogen and the conclusion, therefore, that some risk must be assumed at any dose, regulatory agencies have attempted to minimize human exposure to carcinogens to the extent feasible. This approach was endorsed in the comments received from

the National Cancer Institute, National Institute of Environmental Health Science, National Academy of Sciences, Consumer Product Safety Commission, National Institute of Environmental Health Sciences, Food and Drug Administration, Occupational Safety and Health Administration, as well as the National Drinking Water Advisory Council. See Appendix B.

EPA's selection of an interim MCL of 0.10 mg/l was based on a balancing of public health considerations and the feasibility of achieving such levels in public water systems in the United States. This balancing reflects the existing and generally available technology for water treatment which relies heavily on the proven use of chlorine to produce biologically safe water. It includes the existence of monitoring methods and trained personnel, economic considerations, and the limited amount of technical assistance available from EPA and the States, but primarily the risks that may be introduced in some cases from possibly inadvisable and improperly managed fundamental changes in disinfection practice.

Thus, the interim MCL should not be construed as an absolutely "safe" level, but rather a feasible level achievable with water treatment technology available since 1974. The preponderance of the current scientific thought on human exposure to substances that have been demonstrated to be carcinogens in animals in appropriate tests is that they be considered potential carcinogenic risks to humans. The presumptions are that human health risk is related to the extent of exposure and that no threshold level without risk can be experimentally demonstrated for a genetically diverse population. Translated into regulatory policy, exposure should be minimized so as to minimize unnecessary risks. Therefore, public water systems should strive to reduce TTHMs and related contaminant concentrations to levels as low as is economically and technologically feasible without compromising protection against the transmission of pathogenic microorganisms via drinking water.

The latest comprehensive information on concentrations of TTHMs in the U.S. drinking water was obtained from the National Organics Monitoring Survey (NOMS) of 113 communities sampled 3 times in 1975-77. This represented a wide range of water types including both surface and ground waters, and waters with minimal and substantial TTHM formation potentials. Mean levels of TTHM for Phase II and Phase III were 0.12 mg/l and 0.10 mg/l, respectively, in

samples allowed to react to completion (terminal). Averages of both dechlorinated and terminal samples could be considered estimates of likely concentrations to be found at the tap of the average consumer. These were 0.09 mg/l and 0.08 mg/l, respectively, in Phase II and Phase III. However, maximum TTHM levels ranged as high as 0.70 mg/l and 0.78 mg/l in terminal samples. Therefore, an interim MCL of 0.10 mg/l will result in substantial reductions of TTHM concentrations in many water systems now exceeding the MCL.

Many commenters conceded that TTHMs were undesirable constituents of drinking waters, but preferred that a goal rather than an enforceable MCL should be established. In other words, it was suggested that compliance with a TTHM limit should be optional. However, neither the SDWA nor the facts at hand support such a course of action at this time. The SDWA provides for goals only in the case of the Administrator's list of recommended MCLs (Section 1412(b)(1)(B)), and, even then, the goal is to be selected as the value that would result in no known or anticipated adverse health effects and would allow an adequate margin of safety. Revised regulations must specify MCLs that come as close to the recommended levels as is feasible using the best technology, treatment techniques and other means which the Administrator finds are generally available (taking costs into consideration) (section 1412(b)(3)).

The SDWA clearly requires that EPA take regulatory action by establishing enforceable standards, not merely health goals. Since the issuance of EPA's ANPRM and proposal in this rulemaking, only a limited number of systems have voluntarily reduced the levels of TTHMs in their water supplies. Only in the presence of a mandatory requirement can EPA expect the full commitment in time and resources by community water systems and the oversight by State regulatory agencies necessary to achieve compliance nationally.

#### MCL Summary

Thus, based on the foregoing considerations set forth in the rulemaking record, the Administrator believes that an MCL for TTHMs of 0.10 mg/l in the Interim Regulations will protect human health to the extent feasible as prescribed by Section 1412(a)(2) of the SDWA. Since the optimum and only totally "safe" dose for any carcinogen would be zero, EPA strongly encourages all public water systems, not only those that exceed the

interim MCL, to implement measures to minimize the amounts of TTHMs and related by-products in finished water. TTHM levels in finished water are a function of the raw water quality (precursor content) and the sequence of treatments applied. Based upon the performance of developing technologies, it appears that ultimately many public water supplies with currently high TTHM levels may be able to achieve TTHM concentrations as low as 0.010 to 0.025 mg/l and EPA suggests those values as future goals. The MCL will be reconsidered in the Revised National Primary Drinking Water Regulations based upon an updated assessment of technological and economic feasibility, implementation experience and additional toxicological information.

#### *Population Coverage and Phase-In of the MCL and Monitoring Requirements*

The proposed regulations would have initially applied the MCL only to those community water systems serving 75,000 or more people, and would have only required that monitoring data be collected for one year in communities serving between 10,000 and 75,000 people. Systems smaller than 10,000 would not be initially covered. The proposed effective date of the MCL was 18 months after promulgation.

EPA solicited comments on alternative approaches for coverage and implementation, for example by applying the MCL to all systems and phasing-in implementation through a deferred monitoring schedule (i.e., systems larger than 75,000 required to begin monitoring within one year of promulgation, 10,000-75,000 within three years of promulgation, and all other communities within five years).

The majority of commenters felt that the regulations should not be limited to the larger than 75,000 population community water systems, although some agreed that some phasing mechanism would be appropriate. The NDWAC suggested that utilities serving 10,000 to 75,000 should be included beginning three years after implementation of regulations in the larger than 75,000 group. The NDWAC also recommended in its initial comments that implementation in communities smaller than 10,000 should be at the option of the State.

EPA has concluded that the coverage of these regulations should be expanded to include community water systems serving 10,000 or more persons. Systems serving 75,000 or more people are required to comply within two years of promulgation, and systems serving between 10,000 and 75,000 are required

to comply within four years of promulgation.

This still means that systems serving fewer than 10,000 people are not required to comply with the TTHM MCL. However, EPA does not believe that this approach will result in those persons served by the smallest systems being afforded reduced health protection. This is because the great majority (about 80%) of these smallest systems are served by groundwater sources that are low in THM precursor content. The proportion of small community water systems that utilize chlorine is less than that of large systems and transport time within the distribution system, which increases the extent of TTHM formation, is generally shorter in small systems. Therefore, their drinking water is less likely to be subject to TTHM contamination.

Moreover, the smallest systems incur a greater risk of adversely affecting the microbiological quality of their drinking water when steps are taken to reduce TTHMs. The majority of waterborne disease outbreaks attributable to inadequate treatment practice still occur in the smallest systems. Such systems also have limited or no access to the resources and professional expertise needed for TTHM control. Thus, EPA believes that it would be premature to divert their already sparse resources away from improving their disinfection practices by requiring compliance with a TTHM MCL at this time.

It is imperative that any changes in current treatment practice must be carefully supervised and supported by technical assistance from the States or EPA. However, it is not administratively feasible for the States and EPA to adequately supervise the approximately 57,000 systems which each serves communities of fewer than 10,000 people.

The approximately 60,000 community water systems in the U.S. range in size from 25 persons to several million and serve a total of about 213 million people. The 390 systems exceeding 75,000 population serve about 101 million people, and the 2,300 systems between 10,000 and 75,000 serve an additional 66 million people. Thus, the final regulations cover approximately 80% of the U.S. population served by community water systems. Most of these larger systems have at least potential access to the technical personnel needed to safely and successfully carry out any fundamental changes in disinfection practice. The smallest systems serve only 20% of the population but comprise a sufficiently large number of systems to make careful supervision effectively impossible in the

short-term. Nevertheless, EPA does not intend that these smallest systems be excluded from coverage of the TTHM regulations indefinitely.

EPA considered specifying monitoring requirements for these smallest systems and/or making the MCL applicable to such systems with an extended timeframe for compliance. However, considerable additional time would have been necessary to insure availability of laboratory capability to handle the increased number of TTHM analyses and adequate State and EPA technical assistance. Therefore, it did not seem prudent to specify requirements now for which compliance would be required so far in the future. The considerable experience that will be gained from the efforts of the larger systems to comply with the TTHM MCL will serve to make compliance by the smaller systems more feasible. For that reason, EPA expects that small systems will be subject to a TTHM MCL under the Revised Primary Drinking Water Regulations when they are established. In those States which choose to exercise their discretion to extend coverage to the small systems, EPA expects that additional phasing may be appropriate within this size category based on greatest likelihood of TTHM contamination, such as by first including those systems with surface water supplies.

#### *Implementation Timing*

The majority of commenters on the question of the timing of the effective date of the MCL felt that 18 months after promulgation was inadequate to allow for design and implementation of the most cost-effective treatment system for compliance. They stated that eighteen months would only be adequate if minor modifications were needed. EPA has reevaluated the treatment methods most likely to be used and has concluded that in most cases relatively minor technical modifications will be sufficient to substantially reduce TTHM levels below the MCL. Therefore, a delay in the effective date would not have been justified on this ground.

Other commenters pointed out that insufficient laboratories were available to analyze TTHM samples and that a quality assurance program would need to be developed; some suggested that monitoring should be delayed for those reasons. EPA agrees with those commenters concerned about the availability of sufficient numbers of laboratories capable of providing acceptable analytical data. At this time, only relatively few laboratories have demonstrated the capability of

consistently producing data with the required accuracy and precision.

EPA has, therefore, decided to extend the time frame for initiation of the monitoring requirement for systems serving 75,000 or more persons from the proposed three months after promulgation to one year after promulgation. This will allow additional time for State and private laboratories to develop their capabilities and to become certified to provide data in support of compliance determinations. Since the effective date for initiation of monitoring is one year after promulgation and one year of monitoring results is required to determine compliance, the effective date of the MCL for those systems is established as 2 years after promulgation. To accommodate the large incremental monitoring load, application of the monitoring requirements to the approximately 2,300 systems serving 10,000 to 75,000 persons is established at 3 years following promulgation and the effective date of the MCL in this population range is 4 years after promulgation. Despite these extended deadlines, EPA encourages water systems to initiate monitoring and corrective measures sooner than this schedule whenever it is feasible to do so, especially where high THM levels are suspected.

EPA will immediately initiate an interim certification program for State laboratories (and others if appropriate) that will be based on their ability to analyze Performance Evaluation samples which will be provided by EPA's Environmental Monitoring and Support Laboratory (EMSL). Two analytical methods (Purge and Trap and Liquid-Liquid Extraction) have been approved under § 141.30(e) of the regulations and the written procedures are available on request from EPA's EMSL, 26 W. St. Clair Street, Cincinnati, Ohio 45268.

To qualify for Interim Certification, laboratories will be required to demonstrate their ability to analyze the Performance Evaluation samples provided to them to within 20% of the "true value" for each of the THMs as well as for the total of the THMs in the samples, using at least one of the approved methods. As the certification program develops and more laboratories gain expertise, it is likely that the precision and accuracy requirements will become more stringent. A quality assurance program will be established to insure that continued certification is dependent upon the laboratories' continued ability to perform quality analyses.

#### State Primacy and Exemptions

The time frame of these amendments to the NIPDWR will significantly affect two other statutory provisions of the SDWA: continuation of State primary enforcement responsibility (or primacy) under Section 1413 and the issuance of exemptions from MCLs under Section 1416.

With respect to State primacy, the Agency will shortly be proposing amendments to its State implementation regulations, 40 CFR Part 142, which will provide primacy States adequate time to amend their regulations without jeopardizing primacy while more stringent federal regulations take effect. States are encouraged to begin the process of amending their regulations as quickly as possible. However, no action to withdraw primacy will be taken pending the establishment of new EPA regulations under Part 142.

Under Section 1416(b)(2)(B) of the SDWA, schedules attendant to exemptions from the NIPDWR must require compliance by no later than January 1, 1981 (or January 1, 1983, for systems that enter into enforceable agreements to become part of a regional water system). This will, in most cases, preclude the issuance of exemptions from the requirements promulgated today. Since the issuance of exemptions is discretionary with the State, or EPA where the State does not have primary enforcement responsibility, the unavailability of exemptions *per se* is not believed to be a fatal deficiency in the regulations. Nevertheless, EPA recognizes that some systems may not achieve compliance by the effective dates despite their best efforts. EPA is planning to seek from Congress an extension of the exemption deadlines as they may apply to these regulations when the Agency's implementation of the Act is the subject of oversight hearings. The States and EPA may also exercise their enforcement discretion in those cases where compliance with the MCL for THMs is not achieved before the applicable effective date despite the system's good faith efforts to comply.

#### Summary

Therefore, EPA has accepted the recommendation of the NDWAC and many other commenters to broaden the coverage of the THM regulations and to phase-in its implementation as follows:

Water systems serving more than 75,000 are required to be in compliance by two years from the date of promulgation of these regulations. Systems serving between 10,000 and 75,000 are required to be in compliance

by four years from the date of promulgation.

Monitoring must be initiated no later than one year from the promulgation date by those water systems 75,000 or larger, and three years from promulgation by those systems in the 10,000 to 75,000 population range. However, EPA urges that compliance and monitoring be accelerated in those water systems where this is feasible and where assistance is available from the primacy authority, especially where high THM levels are suspected.

Compliance with the MCL and monitoring in communities smaller than 10,000 would only be required if the primacy State adopts regulations that are more expansive than these federal regulations. EPA will consider expanding the coverage of THM regulations to include smaller systems when it establishes Revised Primary Drinking Water Regulations.

#### Monitoring Requirements

The proposed monitoring requirements for systems exceeding 75,000 population included quarterly sampling consisting of at least five water samples collected on the same day. The sampling locations were to be representative of THM concentrations at the consumer's tap; no more than 20% to be collected at the entry point of the distribution system, no less than 20% at the extremes of the system and the remaining 60% representative of population density throughout the distribution system. Compliance would be determined by averaging the quarterly values from the preceding 12 months. Surveillance monitoring only for one year was proposed for systems between 10,000 and 75,000 population. This consisted of two samples per quarter to be collected at the entry to the distribution system. One sample would be dechlorinated and the other stored for seven days to permit completion of the chlorination reaction. These final regulations eliminate any distinction (except for timing) between the largest and medium size systems and modify the requirement somewhat.

The majority of the comments on this issue were in agreement with the concept of determining compliance by an annual average of quarterly samples. Others disagreed, arguing that averaging might mask fluctuations, and some felt that averaging results in the distribution system would result in higher exposures to those populations residing in the extremes of the system. A few felt that the extreme values rather than averages should be used to compute compliance. Some commenters suggested that systems using deep ground water should

be exempted because of probable low THM formation potential. Others disagreed with a continued monitoring requirement, even at a reduced frequency, after it had been established that TTHM concentrations were unlikely to approach or exceed the MCL. A number agreed with monitoring requirements but objected to public notification of results.

The intent of the monitoring requirements is to provide a reasonable representation of the normal concentrations of TTHMs and related chemicals at the tap of the typical consumer. Data has shown that there can be wide variation of TTHM concentrations particularly in surface waters and groundwaters with high precursor levels on a day to day basis and that levels at various points in a distribution system can differ markedly. The variations can be due to a number of factors that include seasonal or other changes in precursor concentrations in the raw water, the amount of precipitation and surface run-off, the treatment method, the presence of combined or free residual chlorine, chlorine contact time, pH, temperature and transit time during distribution.

EPA feels that it would be unreasonable at this time to demand the kind of pinpoint control that would be necessary to maintain TTHM levels below a particular figure at all times and at all locations in the distribution system of every water system. This Interim Regulation is intended to reduce the extremes of TTHM concentrations that have been found in some of the nation's public water systems, and thus, to reduce the variability that may occur within a given distribution system. TTHMs in drinking water do not present acute or short-term risks but rather chronic or lifetime risks that increase with long-term exposure. Therefore some variations are tolerable and probably do not contribute to a change in overall risk. Thus, EPA has concluded that an averaging approach is appropriate and the use of a 12 month running average for computing compliance is retained in the regulations.

The frequency of monitoring must be based upon its usefulness for determining the concentrations of TTHMs in finished water. It should also reflect the potential for variability of the contaminant concentration, and this is highly dependent upon site-specific factors such as distance from the treatment plant, source water quality and treatment methods used. These factors are particularly important in selecting sampling locations which will

be truly representative of water served to consumers regardless of their location within the distribution system, especially when a system uses more than one treatment plant.

The consensus of the comments was that quarterly monitoring was adequate in most cases but many argued for more samples. Quarterly monitoring has been retained in the regulation because EPA considers this to be the minimum acceptable frequency in those places where the water has a potential for seasonal variability in TTHM levels. EPA strongly urges that States review each water system's monitoring program to insure that the monitoring is reflective of seasonal and other variation factors. More frequent monitoring should be required where this is necessary for adequate consistent year-round control of TTHM levels below the MCL. Such discretion to require more frequent monitoring is provided for in these regulations.

In further response to those comments encouraging more frequent monitoring to reflect variations of water quality in the distribution system, EPA agrees that some conditions lead to a greater potential for wide variations of TTHM levels. For example, if a community water system uses more than one treatment plant to provide water, different water sources may be used as well as different treatment processes, leading to the possibility of widely differing TTHM levels in parts of the distribution system. For this reason, the proposed sampling scheme has been changed to increase the weighting of distribution system samples. Samples taken at the entry point to the distribution system can no longer be included in the quarterly or annual averages. No less than 25% of the samples shall be collected at locations within the distribution system reflecting maximum residence time of the water in the system and no more than 75% from representative locations within the distribution system taking into account number of people served, source of water and treatment methods used. Thus, the required number of samples is reduced by 20% yet the results should be more representative of tap levels throughout the system, because the deleted entry point sample would not have reflected TTHM levels for a substantial portion of the population served. Of course, these compliance monitoring requirements do not preclude water systems from utilizing plant samplings for process control.

Moreover, a minimum of four compliance samples is required each quarter for each treatment plant used by

the system, except that wells drawing raw water from a single aquifer may, with State approval, be considered one treatment plant for the purpose of determining the minimum number of samples required to be taken by the system. By determining the minimum number of samples per system based upon the number of separate treatment plants used by the system, sampling locations should be selected to reflect water quality in identifiable portions of the distribution systems associated with each plant to the extent possible. Larger systems are those most likely to have more than one treatment plant, and therefore more samples are both desirable in insuring consistent water quality throughout the distribution system and not likely to significantly increase the per capita cost of monitoring. However, it would not be reasonable to increase the number of samples to be taken proportionate to the number of wells drawn from a single aquifer even though each well might literally be considered a single treatment plant; water quality is likely to be consistent throughout the aquifer and many systems have a large number of wells. Therefore, with State approval, wells drawing raw water from a single aquifer may be deemed to be a single treatment plant for purposes of determining the minimum number of samples required to be taken by the system. The regulations do not provide for similar flexibility for systems drawing water from a single surface source due to the likelihood of much greater variability in raw water quality and treatment methods at different plants.

The sampling locations are important because TTHM levels will likely be higher in those parts of the distribution system where residence time of the water is longest, which is served by surface water sources, and where chlorination, as opposed to other disinfection practices, is used. Even though the samples will be averaged for determining compliance with the MCL, EPA expects that sampling will be conducted in such a way so as to insure that all parts of the distribution system are serving water to consumers in compliance with the MCL. Thus, where a system draws its raw water from multiple sources, or has more than one treatment plant utilizing different treatment methods, high THM levels in specific parts of the distribution system should be identified where possible, and such levels reduced to the extent feasible. EPA intends to address more comprehensively the problems of systems with multiple source waters and

multiple plants with differing treatment programs, when it proposes Revised Primary Drinking Water Regulations in the future.

EPA also recognizes that there are a number of public water systems, such as those utilizing ground waters and some surface water supplies, where, because of the consistent quality of the source water and the treatment method employed, the probability that finished water would approach or exceed the MCL is remote. After a satisfactory record has been established, through one year of monitoring at a frequency of four TTHM samples per quarter, a water system may request that the State allow a reduction of the monitoring frequency. Upon the State's examination of at least one year of compliance data and a finding by the State that local conditions are such that TTHM concentrations are consistently below the maximum contaminant level, the system's monitoring frequency may be reduced to a minimum of one TTHM sample per quarter taken at a point in the distribution system that reflects the maximum residence time of the water served. Should the system experience a significant change in either its source of water or its treatment program, it must immediately reinstitute the four samples per quarter monitoring program initially required and continue on that program for at least another year before its sampling frequency could be reduced again so that the data baseline can be re-established. The original sampling requirements must also be reinstated immediately if the results from any analysis for TTHMs are found to exceed 0.10 mg/l and such results are confirmed by at least one check sample taken promptly after the results of the first analysis are received.

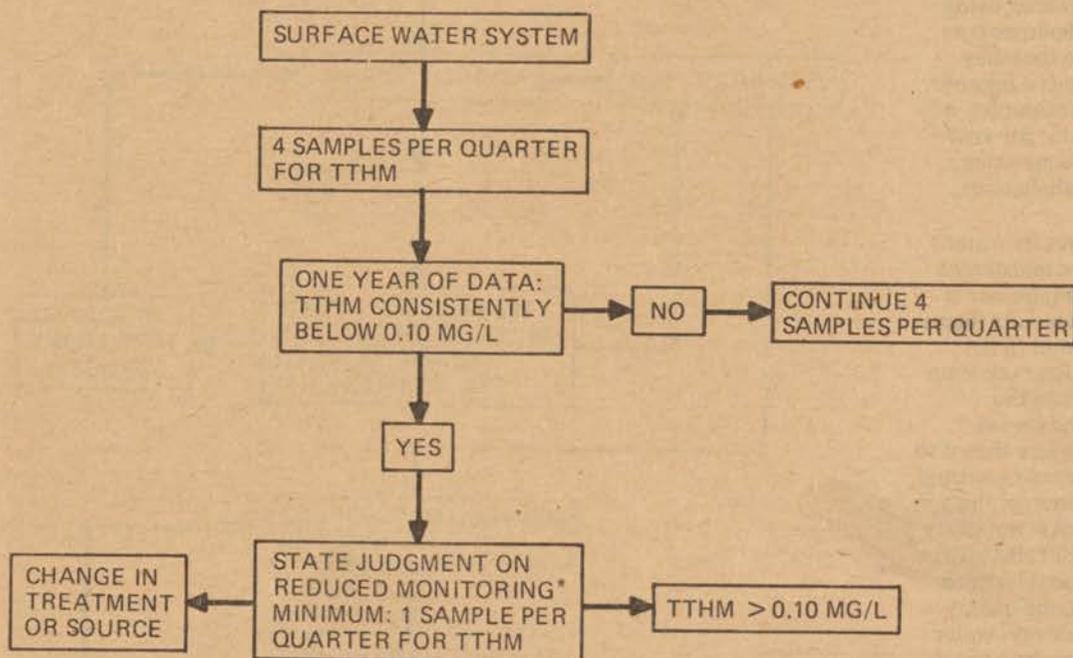
The State's decision to reduce a system's monitoring frequency must be made on a case-by-case basis taking into account such factors as the monitoring data, the quality and stability of the source of raw water, low total organic carbon (TOC) values, low maximum TTHM potential (MTP) during the time period when THM formation would most likely be at a maximum and the type of treatment employed. Except in certain ground water cases, monitoring cannot be reduced to less than one TTHM sample per quarter. This minimum monitoring is deemed necessary and is sufficient to demonstrate that conditions have not changed to the extent that the MCL might be exceeded. Intermittent use of another water source may also require additional monitoring at the discretion of the State. This flexibility is included

in the regulations to allow States to modify the generally applicable monitoring requirements where appropriate only on a case-by-case basis to insure adequate public health protection. Figure 1 presents the basic steps to be followed by those systems (other than special ground water cases discussed below) that seek State approval to have their monitoring requirements reduced from four samples to one sample of TTHMs per quarter per year. "Maximum total trihalomethane potential (MTP)" is defined as the maximum concentration of TTHMs produced in a given water containing excess free chlorine after seven days at a temperature of 25° C. Determination of maximum TTHM potential should not be confused with measurement of terminal TTHM concentrations. The latter is measured under the ambient conditions of the distribution system with regard to temperature and storage time.

BILLING CODE 6560-01-M

**FIGURE 1**  
**CONSIDERATIONS FOR REDUCED MONITORING REQUIREMENTS**  
**SURFACE WATER SYSTEMS**

THE MINIMUM MONITORING REQUIREMENT IS FOUR SAMPLES PER QUARTER PER PLANT. REDUCED MONITORING REQUIREMENTS MAY BE APPROPRIATE IN CERTAIN CASES; UPON WRITTEN REQUEST FROM THE PUBLIC WATER SYSTEM, STATES MAY REDUCE THE REQUIREMENTS THROUGH CONSIDERATION OF APPROPRIATE DATA AS FOLLOWS:



\*FACTORS FOR CONSIDERATION:

- MONITORING DATA, MTP, TTHM, TOC
- QUALITY AND STABILITY OF SOURCE WATER
- TYPE OF TREATMENT

BILLING CODE 6560-01-C

### Ground Water Sources

As several commenters suggested and EPA agrees, many, if not most, ground waters contain such small amounts of precursor organic compounds (as demonstrated by low total organic carbon levels and low measured maximum TTHM potential) and are so stable, as to virtually preclude the possibility of generating TTHM levels approaching or exceeding 0.10 mg/l even when free chlorine is employed as a disinfectant. For this reason, the regulations provide that the monitoring frequency applicable to systems using exclusively ground water sources may be reduced at the outset so that they may be relieved from the more rigorous monitoring program of four samples, or even one sample, per quarter per year which is applicable to systems using surface water sources in whole or in part.

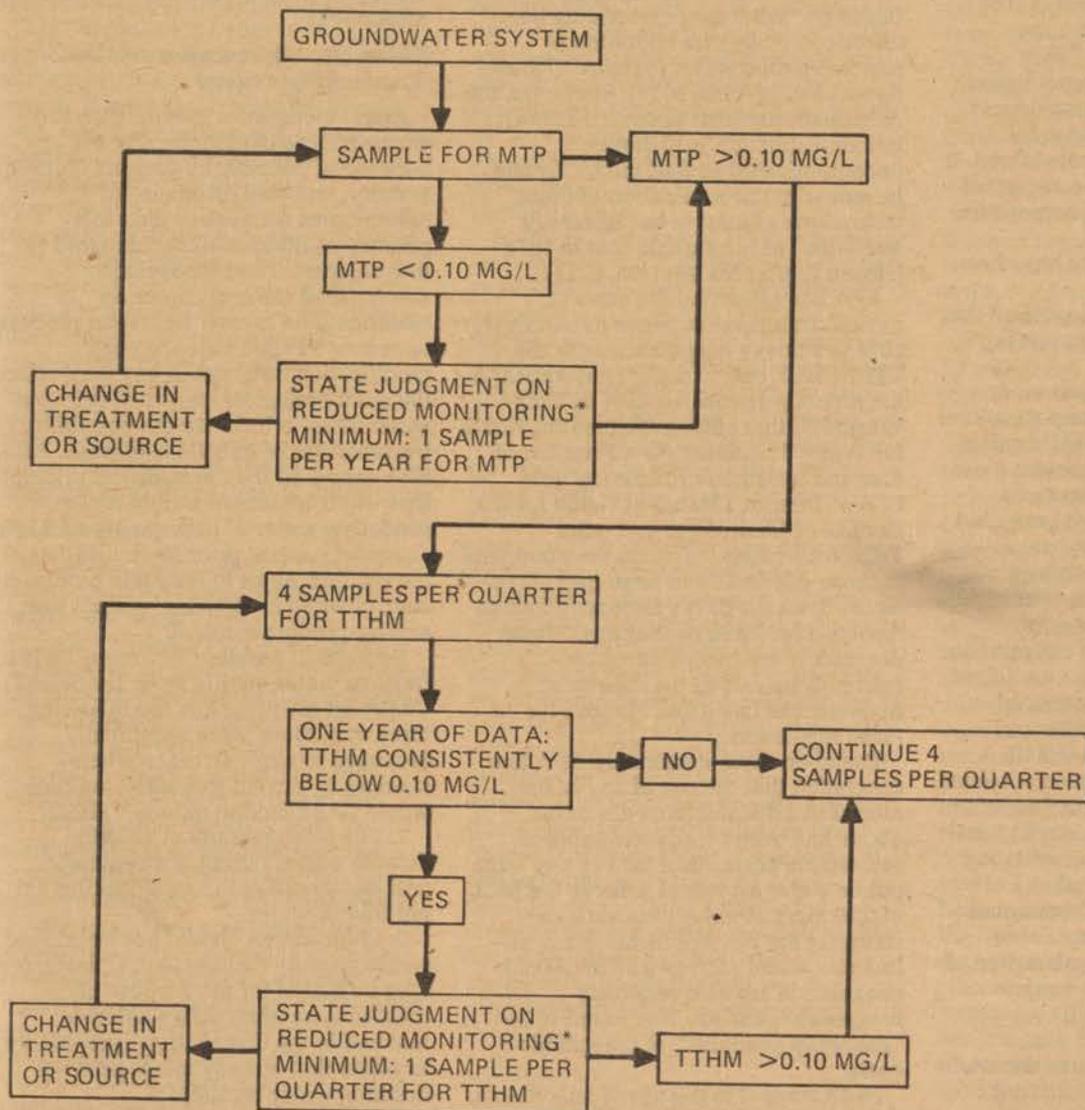
Thus, a system that draws its water exclusively from ground water sources may have its monitoring requirements reduced by the State if the results from a single sample taken at a point in the distribution system reflecting maximum residence time of the water in the system and analyzed for maximum TTHM potential (MTP) are less than 0.10 mg/l and the State determines in writing that, based on an examination of the local conditions, the system is not likely to approach or exceed the TTHM MCL. The State is expected to consider such factors as monitoring data, the quality and stability of the system's raw water source, low TOC values, low maximum TTHM potential during the time period when THM formation would most likely be at a maximum and the type of treatment employed. Such sampling frequency cannot be reduced to less than one sample for MTP per year. If such a system experiences a significant change in its source of water or treatment program, it must immediately take an additional sample for MTP analysis to determine whether it should be authorized to continue on the reduced monitoring program following the change. If the MTP is ever greater than 0.10 mg/l and such results are confirmed by a check sample taken promptly after the results of the original sample are received, the system must immediately begin taking and analyzing four samples per quarter per year for one full year. The year's results would then be averaged for determining whether the system was in compliance with the TTHM MCL. "Maximum total trihalomethane potential" is defined in the regulations at new § 141.2(s).

Figure 2 presents the basic steps to be followed by those systems using exclusively ground water sources that seek to have their monitoring frequency reduced at the outset to one sample analyzed for MTP per year, as opposed to the four samples for TTHMs per quarter per year otherwise applicable.

BILLING CODE 6560-01-M

**FIGURE 2**  
**CONSIDERATIONS FOR REDUCED MONITORING REQUIREMENTS**  
**GROUNDWATER SYSTEMS**

THE MINIMUM MONITORING REQUIREMENT IS FOUR SAMPLES PER QUARTER PER PLANT; SYSTEMS USING MULTIPLE WELLS DRAWING RAW WATER FROM A SINGLE AQUIFER MAY WITH STATE APPROVAL BE CONSIDERED AS ONE TREATMENT PLANT. REDUCED MONITORING REQUIREMENTS MAY BE APPROPRIATE IN CERTAIN CASES; UPON WRITTEN REQUEST FROM THE PUBLIC WATER SYSTEM, STATES MAY REDUCE THE REQUIREMENTS THROUGH CONSIDERATION OF APPROPRIATE DATA AS FOLLOWS:



**\*FACTORS FOR CONSIDERATION:**

- MONITORING DATA, MTP, TTHM, TOC
- QUALITY AND STABILITY OF SOURCE WATER
- TYPE OF TREATMENT

BILLING CODE 6580-01-C

### Technical Feasibility of TTHM Reduction

In establishing an MCL for TTHMs, EPA is not required to specify any particular method to achieve that standard. However, in establishing Interim Regulations, EPA must find that technology was generally available in 1974 to achieve the MCL. Thus, the preamble to the proposal did discuss a number of approaches that could be utilized to achieve the MCL depending on the individual circumstances. The "Interim Treatment Guide for the Control of Chloroform and Other Trihalomethanes" was also published and made available to commenters to provide information on successful techniques that should be considered. It is incorporated by reference as part of the Statement of Basis and Purpose for these regulations.

Three general alternatives have been presented:

(1) Use of a disinfectant (oxidant) that does not generate (or produces less) THMs in water;

(2) Treatment to reduce precursor concentrations prior to chlorination; and

(3) Treatment to remove THMs after formation. Many possible choices exist within each category. For example, alternate disinfectants or oxidants that might be considered include ozone, chlorine dioxide, and chloramines (combined chlorine). Precursor reduction processes include off-line raw water storage, aeration, improved coagulation, ion exchange resins, granular activated carbon (GAC), powdered activated carbon (PAC), and ozone enhanced biological activated carbon (BAC). TTHM reduction has also been achieved by merely moving the chlorine addition point to later stages in the conventional treatment process, and by substituting prechlorination with some other preoxidation process. TTHM removal processes include GAC, aeration or macroporous resins. A combination of these methods may be necessary to comply with the TTHM MCL.

Few comments discussed the feasibility of the available treatments, and three suggested that additional research should be performed on the subject. EPA has concluded that many methods have been shown to be effective for meeting the 0.10 mg/l MCL for TTHMs and it remains only for the individual water systems to select the one or more procedures that are optimal for their particular water characteristics.

Which treatment method (or combination of treatment methods) is ultimately selected by a water supplier to achieve compliance with the MCL must be based upon a case-by-case

assessment of the system's entire treatment process, and an evaluation of the precursor content of its raw water source and TTHM formation potential as well as the need to assure optimal biological quality of drinking water derived from contaminated sources.

In determining what technologies were "generally available" in 1974 for achieving the standard, EPA has taken cost into consideration. The legislative history of the SDWA clearly requires that the reasonableness of costs must be based on "what may reasonably be afforded by large metropolitan or regional public water systems" (House Report No. 93-1185, p. 18). Moreover, the Administrator must assume that most intake waters are sufficiently uncontaminated so that the MCLs can be met with the application of those technologies found to be "generally available" at reasonable cost in 1974 (House Report No. 93-1185, p. 13).

EPA has estimated the costs of various treatment methods available in 1974 to achieve compliance with the TTHM MCL of 0.10 mg/l. They appear in the report prepared for EPA by Culp/Wesner/Culp entitled, "Estimating Costs for Water Treatment As a Function of Size and Treatment Efficiency" and EPA's "Interim Treatment Guide for the Control of Chloroform and other Trihalomethanes." The cost assumptions in those documents in large part serve as the basis for EPA's Economic Impact Analysis for these regulations. These documents are incorporated by reference as part of the Agency's Statement of Basis and Purpose for these regulations.

Based on these documents, EPA has concluded that the use of any of the alternative disinfectants discussed above has been clearly available at reasonable costs since 1974 to any large public water system to achieve the MCL of 0.10 mg/l. Alternatives, such as changing the point of disinfection, off-line raw water storage and improved coagulation are also relatively inexpensive and are also found to be "generally available" at reasonable costs.

With respect to the use of adsorbants, the reasonableness of costs will be dependent upon the particular operational parameters that are employed. For purposes of establishing these regulations, EPA assessed the costs that would be incurred by systems utilizing GAC as a replacement for their existing filter media, with a regeneration frequency of one year. Although most systems are expected to select the less expensive treatment methods where they are effective in achieving compliance with the MCL, the use of

GAC under these operating conditions has also been found to be "generally available" at reasonable cost since 1974 for achieving the standard. Systems with very high raw water TOC may need to use GAC with more stringent operating parameters or additional treatment methods to achieve the MCL. For this reason, EPA has also assessed the cost of using biological activated carbon (ozone plus GAC) with a regeneration frequency for the carbon of two years; this cost has also been found to be reasonable.

### Disinfectant Restrictions and the Standard Plate Count

Restrictions were proposed on the excessive use of chlorine dioxide because of possible by-product chlorite toxicity, and also on misuse of chloramines because of their low-potency as disinfectants compared to free chlorine. The proposal also admonished those considering modifications to their treatment process to reduce TTHMs that any such modification must not in any way affect the microbiological quality of drinking water so as to increase the possibility of transmission of infectious disease. Also, EPA espoused the fundamental principle that water treatment should aim at producing water of high quality and low chemical content prior to application of the oxidant, so as to maintain pathogen control while minimizing oxidant use and by-product demand.

Because of possible adverse effects on finished water quality from ill-advised treatment modification, the following three conditions were specifically proposed to apply in cases where changes to current treatment practice would be utilized to reduce TTHMs:

1. The total quantity of chlorine dioxide added during the treatment process should not exceed 1 milligram per liter of water.

2. Chloramines should not be utilized as the primary disinfectant. Chloramines may be added for the purpose of maintenance of an active chlorine residual in the distribution system only to water that already meets primary drinking water regulations.

3. Monitoring for general bacteria populations (Standard Plate Count) should be performed as determined by the State but at least daily for at least one month prior to and six months subsequent to the modifications.

These restrictions have been deleted from the final regulations to provide the States with greater discretion to prescribe requirements as necessary on a case-by-case basis. This should not be construed to reflect EPA's lack of concern regarding microbiological

quality. As described below, EPA is requiring that water systems obtain State approval of any proposed significant modifications to their treatment process. Once a system's plan is approved, the system must follow the plan. Moreover, these regulations prescribe those minimum conditions which must be satisfied by the plan before State approval can be granted. EPA will also publish guidance for the States that will serve as a useful reference in approval of system plans.

This approach is believed to be more reasonable than the inclusion of specific nationally applicable restrictions which may or may not be applicable in every case. Because systems will begin making modifications to their disinfection processes immediately upon promulgation of this regulation (and in fact, some systems have already begun to make such changes), EPA has determined that good cause exists to make the requirements of § 141.30(f) (approval of system treatment modification plans) effective immediately upon promulgation. This is necessary to ensure that all system treatment modifications are made subject to close State and EPA supervision at the earliest possible time.

#### *Chlorine Dioxide*

Oxidation/reduction reactions of chlorine dioxide in water produce chlorite and some chlorate and ultimately chloride ions. Preliminary studies with cats and rats had indicated that excessive exposures (above 10 mg/l) to chlorite had resulted in deleterious effects on red blood cells in some animals. A limit on applied chlorine dioxide of 1 mg/l was proposed to provide a margin of safety from the possible effects of ingested chlorine dioxide and chlorite and chlorate, and assumed that a portion of the chlorine dioxide would be spontaneously reduced to chloride which is not toxic. In a more recent study in a human population using drinking water treated seasonally with chlorine dioxide, statistically significant blood effects were not found at concentrations of approximately 5 mg/l of oxidant in water; however, this was a short duration test that terminated earlier than expected. One individual shown to be deficient in glucose 6-phosphate dehydrogenase, a genetic defect that is present in a small percent of the U.S. population that would possibly be sensitive to oxidants, showed an effect, but, it was within the range of effects of some of the normal population.

Only ten comments were received on the proposed chlorine dioxide restriction and nine were opposed claiming

insufficient evidence of adverse health risk. Several suggested acceptable levels as high as 2 or 3 mg/l, but did not submit supporting data.

EPA has concluded that while there is evidence that exposure to chlorine dioxide by-products can result in detectable if not clinically significant blood effects, restrictions should be more appropriately placed on the residual oxidants ( $\text{ClO}_2$ ,  $\text{ClO}_2^-$  and  $\text{ClO}_3^-$ ) in the water rather than on the amount of  $\text{ClO}_2$  added. The extent of the oxidation/reduction of the added  $\text{ClO}_2$  and the formation of the intermediate chlorite and chlorate would be a function of the reducing agents present in the water, and the chlorine dioxide that would be completely reduced to chlorite is of no toxicological significance.

In the 1979 update of "Drinking Water and Health", the NAS reviewed the data as of 1978 and estimated acceptable exposure values of 0.38 mg/l and 0.21 mg/l for chlorine dioxide and chlorite respectively. These were computed from data in rats and cats and incorporated an uncertainty factor of 100. The NAS also noted that the computed value for chlorine dioxide was consistent with EPA's proposal limiting the amount added to 1 mg/l assuming 50% conversion to chloride. Very recent incomplete data obtained from controlled studies with normal male volunteers detected slight but not clinically significant effects at higher than normal doses. These experiments are continuing and will produce more definitive results within the next year.

Therefore, although the restriction on chlorine dioxide addition has been deleted from the regulation, EPA feels that whenever chlorine dioxide is used residual oxidants should be monitored and kept below 0.5 mg/l. EPA will consider establishing an MCL for chlorine dioxide, chlorite and chlorate or the aggregate as total oxidant for inclusion in the Revised Regulations after further studies have been fully evaluated.

#### *Chloramines*

Chloramine (combined chlorine) has been shown to be a simple and readily available means of reducing the formation of THMs in many water supplies in those cases where raw water quality and treatment methods permit.

The proposal to restrict the use of chloramines in THM control in inappropriate circumstances was based upon the well known fact that chloramines, in themselves, are very weak disinfectants for bacteria, virus and protozoa compared to free chlorine as HOCl, ozone and chlorine dioxide.

Thus, the use of chloramines as a primary disinfectant, (i.e., to kill or inactivate pathogens in raw water), may increase the risk of pathogens reaching the consumer. The proposed restriction would not have affected the use of chloramines for disinfection maintenance in distribution systems.

Opponents of the restriction argued that chloramines had been effectively used in many systems. Other commenters agreed with the proposal that chloramines should be restricted from use as a primary disinfectant. Those opposed to the restriction did not distinguish between the common use of chloramines to maintain an active combined chlorine residual (as a secondary disinfectant by EPA's definition) and total reliance on chloramines (as a primary disinfectant). None of the commenters contradicted the experimental fact that chloramines are much less efficient bacteriocides and virocidases than chlorine (HOCl), ozone, and chlorine dioxide. The NDWAC felt that the proposed limitation was unduly restrictive.

Providing the necessary barrier against waterborne disease transmissions is the function of the total process of providing water to the consumer. This process begins with selection of the best available source, and its protection from contamination and is followed by the treatment train, that may consist of off-line storage, coagulation, sedimentation and filtration and/or lime treatment and pH adjustment, along with several increments of oxidant (disinfectant). It concludes with protecting the finished water in transit by maintenance of the integrity of the distribution system. EPA recognizes the use history as well as the risks inherent in misuse of chloramines and has concluded that the decision is best made on a case-by-case basis by the State or primacy authority in its review and approval of a water system's plan under § 141.30(f) to provide the necessary supervision. This subject is also included in EPA's guidance to the States for approval of system treatment modification plans.

#### *Standard Plate Count*

The presence of coliform bacteria is considered to be the most reliable indicator of possible fecal contamination and associated enteric microorganism. Current National Interim Primary Drinking Water Regulations (40 CFR 141.21, 40 FR 59556) require monitoring for coliforms on a frequency based upon population served in the community water system and include an MCL of 1 coliform per liter as determined by the membrane filter

technique. Nevertheless, certain bacteria, viruses and cysts are more resistant to disinfectants and are capable of surviving in water longer than the coliform indicator organisms.

Because of the possibility that, in the course of applying treatment modifications to reduce TTHMs, some water systems might be tempted to utilize less efficient disinfectants such as chloramines or shorter contact times with free chlorine, the proposal contained a requirement to utilize the Standard Plate Count (SPC) analysis during transition periods when current treatment practice was being modified. This was intended to be applied as a more sensitive indicator of general biological quality to signal the possibility of a deterioration of treatment effectiveness and therefore increased potential of undetected pathogens.

Of the comments on this issue, more than half opposed or questioned the significance of the SPC as an indicator of water quality. However, somewhat less than half of the commenters agreed with the proposal that SPC should be required during treatment modification. A few suggested that SPC should be required only for those water sources receiving discharges of municipal waste. Others felt that SPC should be used at the discretion of the State. The NEWAC recommended that the SPC should not be a regulatory requirement but rather a matter of State discretion.

In "Drinking Water and Health," the Safe Drinking Water Committee of the NAS underscored the usefulness of SPC applied in conjunction with total coliform tests to measure the sanitary quality of drinking water. The Committee recommended use of SPC to:

1. Provide a method for monitoring for changes in the microbiological quality of finished water;
2. Determine whether the normal flora of a water supply may be interfering with coliform detection; and
3. Monitor the effectiveness of a disinfectant or treatment practice within the plant and distribution system and provide an indication of filter-effluent quality deterioration and the occurrence of the breakthrough of microorganisms.

EPA remains convinced that the SPC is an appropriate adjunct to coliform monitoring and a sensitive indicator of process performance and distribution system integrity, and that it should be employed particularly during periods when treatment modifications are being introduced. Many public water systems have extensively used the test as a routine quality monitor. Its application is particularly essential in drinking water drawn from raw water sources

contaminated by sewage effluent. SPC has been deleted as a requirement from these regulations, but should be a condition for State approval of system plans where disinfection process modifications are contemplated. SPCs are therefore included in the guidance to States for approval of system treatment modification plans.

#### *Microbiological Considerations—State Approval of System Treatment Modification Plans to Reduce TTHMs*

Historically, the States have had the responsibility of ensuring that drinking water in public water systems has received adequate treatment before it is distributed. When systems alter traditional treatment practices to reduce TTHMs, States must continue to exercise control to assure that water is provided to the consumer by public water systems that is microbiologically and chemically safe and of optimal quality. Where States lack primacy enforcement responsibility, that responsibility falls to the EPA Regional Office.

The goal of disinfection has been and still is to produce water that is biologically safe to drink; this goal is attained by killing pathogens in the water. However, potentially harmful chemicals are now known to be produced during disinfection. Quality control thus necessitates careful consideration of all appropriate factors for each public water system modifying disinfection processes to control production of those chemicals, and States should exercise their full authority to see that the public is protected.

The National Academy of Sciences' reports, "Drinking Water and Health" and "The Disinfection of Drinking Water" and the Office of Drinking Water (EPA) Report, EPA-570/9-78-002, "Evaluation of the Microbiology Standards for Drinking Water" address the principles of drinking water disinfection and their effect on microbial problems. These documents, along with the guidance accompanying this regulation, should be consulted early in the development of the public water supply's program to reduce TTHM formation.

The basic principle in achieving compliance with the TTHM MCL is that as TTHM control practices are conceived and put into practice, the water supplied to the consumer must be of optimal quality. Systems must be carefully supervised to ensure that water quality is not allowed to deteriorate as a result of changes in treatment practice, thereby creating risks to the public health from particular

chemicals or infectious agents. The integrity of the bacteriological quality of the drinking water must not be compromised.

EPA is therefore requiring that public water systems contemplating significant changes in treatment practice to control TTHMs submit an action plan to the State for approval and after approval has been received, to follow the conditions set forth in the approved plan, that will be based upon the guidance provided by EPA.

The following summarizes the major principles set forth in the EPA guidance to the States:

1. Prior to any significant modification, the entire system should be evaluated to detect the presence of sanitary defects and to determine the risks from breakthrough of microbiological contaminants in the source water, through treatment and in the distribution system. Virus studies are essential where source waters are heavily contaminated with sewage effluents.

2. A comprehensive evaluation of existing treatment practices and available options should be conducted to determine the most effective treatment modifications that would result in optimum finished water biological quality and TTHM control. Any system deficiencies that are found during the examination should be promptly corrected.

3. A baseline water quality survey of source water, water undergoing treatment prior to disinfection and water within the distribution system particularly in the extremes of the system and in deadends should be conducted prior to the initiation of the TTHM control practices at a sufficient frequency and time span to establish an understanding of the water quality. Measured parameters should include coliform and fecal coliform bacteria, fecal streptococci, standard plate count incubated at 35° C and 20° C, phosphate, ammonia nitrogen, TOC and others directed by the State based on the particular characteristics of local water quality. In systems using poor quality source water, for example, a weekly or more frequent sampling frequency may be necessary.

4. Following modification, the water quality survey (in item 3 above) should be continued for one year to determine the performance of the treatment system for all seasons. The parameters in the baseline study should continue to be examined using samples from the same locations.

5. Treatment practices for TTHM control should also provide effective post disinfection to control microbial

populations, and an active disinfectant residual should be maintained in all parts of the distribution system.

6. If the present point of chlorination is altered, the supply should maintain proper pH control and allow sufficient contact time for optimal disinfection.

7. Monitoring for chlorate, chlorite and chlorine dioxide should be performed when chlorine dioxide is used as a disinfectant. Residual concentrations of total residual oxidants (except for HOCl derivatives) in the water should not exceed 0.5 mg/l in the interim until further EPA studies are completed.

8. Chloramines are less efficient as disinfectants particularly for virus and protozoans as compared to chlorine, chlorine dioxide and ozone. If chloramines are used with contaminated source water, the total treatment process should be capable of compensating for any potential reduction in disinfection efficiency.

9. Ozone is not an appropriate disinfectant for high TOC containing waters unless the potential for post treatment biological growth can be controlled such as by the use of processes that control biodegradable chemicals in the source water and the finished water.

10. Systems presently utilizing pre-chlorination for disinfection purposes must be certain that alternative pretreatment practices are sufficient to protect the public if changes are introduced.

11. Any oxidant (disinfectant) used to treat drinking water will interact with chemicals already in the water to form undesirable by-products in the finished water. Therefore the basic principle should be to maximize precursor removal prior to the addition of the oxidant so as to minimize a disinfectant demand and by-product formation. Otherwise, an excessive disinfectant demand could reduce the efficiency of any disinfectant practice and add, in the process, substantial amounts of undesirable and perhaps toxic compounds.

12. Varied and extensive modification of existing treatment processes often result in changes in the chemical and microbial quality of treated water. Increased monitoring of coliform bacteria and the use of other indicators of the sanitary quality of water (e.g., SPC) are advisable.

Individual system plans for TTHM control should include the design of the vulnerability and baseline data surveys and the additional surveillance monitoring to assure maintenance of biological quality with the altered treatment system and must be approved by the State prior to their

implementation. The plan should also include information on current treatment practices and their performance and other information as directed by the State. EPA believes that if States and public water systems follow the guidance and technical assistance is provided as needed, TTHM control will be safely achieved.

#### *Economic Impact Assessment*

The economic impact of these regulations was projected based on the three principal control options available to the approximately 2,700 community water systems serving more than 10,000 people required to comply with the regulatory requirements—modifying chlorination or associated treatment procedures, changing disinfectants, using an adsorbent, or some combination of the above. The calculation of total national cost projections for the TTHM regulation required an estimate of the number of systems choosing each control option and the incremental costs associated with each option considered. An incremental expense will accrue to all systems covered, whether or not treatment is required, to cover monitoring expenses. These expenses for all systems covered are included in the following estimates of total costs for the TTHM regulation.

This analysis employed a probabilistic and structured approach for determining the choice of control options that each public water system would make since no empirical method exists for predetermining that choice. A logical sequence of decision points was designed to distribute the systems anticipated to be covered by the regulation according to the most likely path they would follow. The decision made at each point is consistent with the following criteria:

1. The treatments currently used: If a system does not add chlorine it will not be affected by a THM regulation, and therefore will require no new treatment.

2. Water source used: If a system uses surface water (except the Great Lakes and some high quality mountain water) as its primary source, it is more likely to exceed a given level of THM contamination. Hence the number of water systems using water from ground or surface sources affects the number of systems which will exceed the MCL and will therefore require treatment.

3. Degree to which water quality exceeds MCL: If the presence of TTHMs is only slightly in excess of the initial MCL, then minimal modifications to current treatment procedures may be adequate for compliance. As the level of contamination increases, a system must

consider more significant (and costly) treatment techniques.

4. Economic considerations: The presumption was that systems would adopt the least costly treatment strategy that satisfies the regulations.

5. Treatment effectiveness: Many systems with TTHM concentrations only slightly above the MCL can comply by modifying treatment procedures. Others may need to change disinfectants. Finally, precursor concentrations resulting in very high THM formation potentials can probably be best controlled by the use of adsorbents. This is because of the likelihood that high disinfectant demand waters cannot be disinfected adequately without generating considerable amounts of by-products of unknown hazard or without exceeding the MCL. Consequently, some of those systems with very high levels of TTHMs are projected to use adsorbents.

Based on all information available to EPA of the 390 public water systems that serve more than 75,000 people, 61 purchase the majority of their water from other systems that are presumed to provide treatment. Thus, a total of 329 systems would be initially affected although 7 of these were excluded because they do not presently add a disinfectant. Of the remaining 322, some 95 systems were estimated to have TTHM levels above 0.10 mg/l and hence would require changes in their treatment processes.

Since the final regulation phases in coverage to include systems serving between 10,000 and 75,000 people, the economic analysis has also included the costs these systems will bear in achieving compliance. Of the 2,295 public water systems that serve between 10,000 and 75,000 people, 355 are known to purchase the majority of their water from other systems that are presumed to provide treatment. Thus a total of 1,940 systems between 10,000 and 75,000 population would be initially affected, although 281 of these are excluded because they do not presently add a disinfectant. Of the remaining 1,659, some 420 systems were estimated to have TTHM levels above 0.10 mg/l and hence would require changes in their treatment processes to comply by the applicable effective date in the regulation.

The following projections were made based upon information presented during the comment period primarily from the water utilities and consultants. Of the systems estimated to be in the range of 1 to 1.5 times the MCL, 60 percent were expected to modify their chlorination procedures and 40 percent were expected to change disinfectants. Of the systems with TTHM levels in the

range of 1.5 to 2.5 times the MCL, 25 percent were expected to change their chlorination procedures with 75 percent changing disinfectants. Finally, of the systems exceeding 2.5 times the MCL, 80 percent were anticipated to change disinfectants and the remaining 20 percent would likely use an adsorbent. On the basis of the above assumptions, national cost estimates for compliance with these final regulations are as follows:

**Summary of Estimated Total Costs for an MCL Regulation With the Trihalomethane Concentration of 0.10 mg/l**

[In millions of 1980 dollars]

	Categories according to population served by average system		
	10,000-75,000	Over 75,000	Total
Capital Expenditures	\$40	\$45	\$85
Operation and Maintenance	5	5	10
Revenue Requirements	9	10	19
Annual per Capita Costs of Treatment <sup>1</sup> (dollars)	0.60	0.90	0.70
Increase in Annual Residential Bill <sup>1</sup> (dollars)	1.20	1.80	1.40

<sup>1</sup> Includes only systems projected to incur treatment costs associated with the THM regulations.

Per capita costs will vary depending upon the type of treatment selected, the system size, and many other factors. Given an MCL of 0.10 mg/l, the range of annual residential bill increases for a typical family of 3 would be from \$0.32 to \$1.89 for systems using an alternative disinfectant and \$4.44 to \$11.18 for systems using an adsorbent in combination with ozonation assuming a 720 day regeneration cycle.

The costs presented in this final analysis are considerably lower than EPA's previous national cost estimates for the TTHM regulations as set forth in the February 9, 1978, notice and later revised in the July 6, 1978, supplemental notice, even though they are now stated in 1980 dollars while the August 1977 report accompanying the proposed regulations used 1976 dollars. The differences causing this reduction result from numerous changes in the underlying data, based on information received during the comment period, including: (a) Revised estimates of the number of systems using disinfectants; (b) revised estimates of the level of TTHMs in a given ground or surface system; (c) changes in the probabilities assigned to branches of the decision tree used to select among control options with more systems using chloramines and many fewer using GAC; (d) revisions of unit cost data to reflect inflation to 1980 dollars and increases in assumed levels of professional fees (resulting in an approximate 28 percent

increase in costs); (e) changes in the GAC costs to reflect longer projected regeneration cycles (from 60 days to 360 days for GAC alone and 720 days for GAC and ozone), more off-site regeneration at regional facilities and use of GAC in existing filter beds. Detailed analysis of the costs of various options and the underlying data are contained in the "Economic Impact Analysis of a Promulgated Trihalomethane Regulation for Drinking Water," available on request, and incorporated by reference as part of the Statement of Basis and Purpose for this regulation.

Although the typical economic impacts appear to be reasonable, it is possible that some utilities will have unique problems which lead to financial hardships. This would take the form of an inability to raise capital needs for improvements in treatment necessary to comply with the TTHM regulation. Should a situation arise, opportunities exist which can ease these financing difficulties. The Office of Drinking Water provides technical assistance in this area, and interested parties should contact: Victor J. Kimm, Deputy Assistant Administrator for Drinking Water (WH-550), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460 for additional information.

#### Energy Impact Assessments

The TTHM regulation will have a negligible impact on annual domestic energy consumption. The total energy requirements associated with the regulation are  $508 \times 10^9$  BTU's, or 0.0007 percent of 1977 U.S. energy consumption. The annual energy requirements of the various treatment alternatives selected by utilities to meet the MCL for TTHMs are as follows: Electric power, 39.9 million kilowatt-hours; diesel fuel, 64,000 gallons; and natural gas, 76.4 million cubic feet. In 1980 dollars these total annual energy requirements are estimated to cost \$2.3 million per year. The annual electric power demand of 39.9 kwhr is approximately 0.002 percent of 1977 total domestic electric power sales. The annual diesel fuel demand represents only 0.00002 percent of the 1977 total domestic demand for refined oil products. At 76.4 million cubic feet, the annual natural gas demand represents less than 0.004 percent of the 1977 domestic natural gas demand.

Approximately 87 percent of the electric power demand is due to ozone disinfection processes. GAC treatment and ozonation together represent 96 percent of the total electric power demand.

The diesel fuel and natural gas requirements are created by the GAC regeneration process. For those water utilities without on-site GAC regeneration, transport of GAC to remote processing sites will require diesel fuel. The regeneration process itself requires either oil or natural gas as an energy source. In preparing these energy demand estimates, EPA assumed that only natural gas would be used in GAC regeneration furnaces. The energy impacts of this regulation are reduced from those associated with the proposal because fewer systems are expected to resort to the more energy intensive treatment methods to achieve compliance with the MCL.

#### Evaluation Plan

As noted previously, these regulations are considered to be an initial step in controlling disinfection by-products, with TTHMs being a surrogate. As the regulations are implemented, an extensive data collection effort will begin through the self-monitoring programs at the applicable public water systems. These data will include levels of TTHMs associated with disinfection of various types of raw water sources and the specific technologies utilized for control of TTHMs.

Compliance with the regulations will be determined by State program staffs and the compliance data will be included in the Model State Information System and Federal Data Reporting Systems (computer systems). This will allow easy access to evaluation of national compliance with the regulations.

The compliance data will be evaluated along with results of ongoing research and development efforts which are examining the toxicology of disinfection by-products and available treatment alternatives for control. The evaluation will be used to determine the appropriateness of the level of the MCL and will be the basis of further regulatory actions controlling disinfection by-products. These evaluations will be conducted no later than three years after the promulgation of the regulations. The Director, Criteria and Standards Division, Office of Drinking Water, should be contacted if further information is desired.

Under Executive Order 12044, EPA is required to judge whether a regulation is "significant" and therefore subject to the procedural requirements of the Order or whether it may follow other specialized development procedures. EPA labels these other regulations "specialized." I have reviewed this regulation and determined that it is a specialized

regulation not subject to the procedural requirements of Executive Order 12044.

Dated: November 5, 1979.

Douglas M. Costle,  
Administrator.

Accordingly, Part 141, Title 40 of the Code of Federal Regulations is hereby amended as follows:

1. By amending § 141.2 to include the following new paragraphs (p) through (t):

**§ 141.2 Definitions.**

\* \* \* \* \*

(p) "Halogen" means one of the chemical elements chlorine, bromine or iodine.

(q) "Trihalomethane" (THM) means one of the family of organic compounds, named as derivatives of methane, wherein three of the four hydrogen atoms in methane are each substituted by a halogen atom in the molecular structure.

(r) "Total trihalomethanes" (TTHM) means the sum of the concentration in milligrams per liter of the trihalomethane compounds (trichloromethane [chloroform], dibromochloromethane, bromodichloromethane and tribromomethane [bromoform]), rounded to two significant figures.

(s) "Maximum Total Trihalomethane Potential (MTP)" means the maximum concentration of total trihalomethanes produced in a given water containing a disinfectant residual after 7 days at a temperature of 25° C or above.

(t) "Disinfectant" means any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines, and ozone added to water in any part of the treatment or distribution process, that is intended to kill or inactivate pathogenic microorganisms.

2. By revising § 141.6 to read as follows:

**§ 141.6 Effective dates.**

(a) Except as provided in paragraph (b) of this section, the regulations set forth in this part shall take effect on June 24, 1977.

(b) The regulations for total trihalomethanes set forth in § 141.12(c) shall take effect 2 years after the date of promulgation of these regulations for community water systems serving 75,000 or more individuals, and 4 years after the date of promulgation for communities serving 10,000 to 74,999 individuals.

3. By revising the introductory paragraph and adding a new paragraph (c) in § 141.12 to read as follows:

**§ 141.12 Maximum contaminant levels for organic chemicals.**

The following are the maximum contaminant levels for organic chemicals. The maximum contaminant levels for organic chemicals in paragraphs (a) and (b) of this section apply to all community water systems. Compliance with the maximum contaminant levels in paragraphs (a) and (b) is calculated pursuant to § 141.24. The maximum contaminant level for total trihalomethanes in paragraph (c) of this section applies only to community water systems which serve a population of 10,000 or more individuals and which add a disinfectant (oxidant) to the water in any part of the drinking water treatment process. Compliance with the maximum contaminant level for total trihalomethanes is calculated pursuant to § 141.30.

\* \* \* \* \*

(c) Total trihalomethanes (the sum of the concentrations of bromodichloromethane, dibromochloromethane, tribromomethane (bromoform) and trichloromethane (chloroform)) 0.10 mg/l.

4. By revising the title, the introductory text of paragraph (a) and paragraph (b) of § 141.24 to read as follows:

**§ 141.24 Organic chemicals other than total trihalomethanes, sampling and analytical requirements.**

(a) An analysis of substances for the purpose of determining compliance with § 141.12(a) and § 141.12(b) shall be made as follows:

(b) If the result of an analysis made pursuant to paragraph (a) of this section indicates that the level of any contaminant listed in § 141.24 (a) and (b) exceeds the maximum contaminant level, the supplier of water shall report to the State within 7 days and initiate three additional analyses within one month.

5. By adding a new § 141.30 to read as follows:

**§ 141.30 Total trihalomethanes sampling, analytical and other requirements.**

(a) Community water system which serve a population of 10,000 or more individuals and which add a disinfectant (oxidant) to the water in any part of the drinking water treatment process shall analyze for total trihalomethanes in accordance with this section. For systems serving 75,000 or more individuals, sampling and analyses shall begin not later than 1 year after the date of promulgation of this regulation. For systems serving 10,000 to 74,999

individuals, sampling and analyses shall begin not later than 3 years after the date of promulgation of this regulation. For the purpose of this section, the minimum number of samples required to be taken by the system shall be based on the number of treatment plants used by the system, except that multiple wells drawing raw water from a single aquifer may, with the State approval, be considered one treatment plant for determining the minimum number of samples. All samples taken within an established frequency shall be collected within a 24-hour period.

(b)(1) For all community water systems utilizing surface water sources in whole or in part, and for all community water systems utilizing only ground water sources that have not been determined by the State to qualify for the monitoring requirements of paragraph (c) of this section, analyses for total trihalomethanes shall be performed at quarterly intervals on at least four water samples for each treatment plant used by the system. At least 25 percent of the samples shall be taken at locations within the distribution system reflecting the maximum residence time of the water in the system. The remaining 75 percent shall be taken at representative locations in the distribution system, taking into account number of persons served, different sources of water and different treatment methods employed. The results of all analyses per quarter shall be arithmetically averaged and reported to the State within 30 days of the system's receipt of such results. Results shall also be reported to EPA until such monitoring requirements have been adopted by the State. All samples collected shall be used in the computation of the average, unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in paragraph (e) of this section.

(2) Upon the written request of a community water system, the monitoring frequency required by paragraph (b)(1) of this section may be reduced by the State to a minimum of one sample analyzed for TTHMs per quarter taken at a point in the distribution system reflecting the maximum residence time of the water in the system, upon a written determination by the State that the data from at least 1 year of monitoring in accordance with paragraph (b)(1) of this section and local conditions demonstrate that total trihalomethane concentrations will be consistently below the maximum contaminant level.

(3) If at any time during which the reduced monitoring frequency prescribed under this paragraph applies, the results from any analysis exceed 0.10 mg/l of TTHMs and such results are confirmed by at least one check sample taken promptly after such results are received, or if the system makes any significant change to its source of water or treatment program, the system shall immediately begin monitoring in accordance with the requirements of paragraph (b)(1) of this section, which monitoring shall continue for at least 1 year before the frequency may be reduced again. At the option of the State, a system's monitoring frequency may and should be increased above the minimum in those cases where it is necessary to detect variations of TTHM levels within the distribution system.

(c)(1) Upon written request to the State, a community water system utilizing only ground water sources may seek to have the monitoring frequency required by subparagraph (1) of paragraph (b) of this section reduced to a minimum of one sample for maximum TTHM potential per year for each treatment plant used by the system taken at a point in the distribution system reflecting maximum residence time of the water in the system. The system shall submit to the State the results of at least one sample analyzed for maximum TTHM potential for each treatment plant used by the system taken at a point in the distribution system reflecting the maximum residence time of the water in the system. The system's monitoring frequency may only be reduced upon a written determination by the State that, based upon the data submitted by the system, the system has a maximum TTHM potential of less than 0.10 mg/l and that, based upon an assessment of the local conditions of the system, the system is not likely to approach or exceed the maximum contaminant level for total TTHMs. The results of all analyses shall be reported to the State within 30 days of the system's receipt of such results. Results shall also be reported to EPA until such monitoring requirements have been adopted by the State. All samples collected shall be used for determining whether the system must comply with the monitoring requirements of paragraph (b) of this section, unless the analytical results are invalidated for technical reasons. Sampling and analyses shall be conducted in accordance with the methods listed in paragraph (e) of this section.

(2) If at any time during which the reduced monitoring frequency

prescribed under paragraph (c)(1) of this section applies, the results from any analysis taken by the system for maximum TTHM potential are equal to or greater than 0.10 mg/l, and such results are confirmed by at least one check sample taken promptly after such results are received, the system shall immediately begin monitoring in accordance with the requirements of paragraph (b) of this section and such monitoring shall continue for at least one year before the frequency may be reduced again. In the event of any significant change to the system's raw water or treatment program, the system shall immediately analyze an additional sample for maximum TTHM potential taken at a point in the distribution system reflecting maximum residence time of the water in the system for the purpose of determining whether the system must comply with the monitoring requirements of paragraph (b) of this section. At the option of the State, monitoring frequencies may and should be increased above the minimum in those cases where this is necessary to detect variation of TTHM levels within the distribution system.

(d) Compliance with § 141.12(c) shall be determined based on a running annual average of quarterly samples collected by the system as prescribed in subparagraphs (1) or (2) of paragraph (b) of this section. If the average of samples covering any 12 month period exceeds the Maximum Contaminant Level, the supplier of water shall report to the State pursuant to § 141.31 and notify the public pursuant to § 141.32. Monitoring after public notification shall be at a frequency designated by the State and shall continue until a monitoring schedule as a condition to a variance, exemption or enforcement action shall become effective.

(e) Sampling and analyses made pursuant to this section shall be conducted by one of the following EPA approved methods:

(1) "The Analysis of Trihalomethanes in Finished Waters by the Purge and Trap Method," Method 501.1, EMSL, EPA Cincinnati, Ohio.

(2) "The Analysis of Trihalomethanes in Drinking Water by Liquid/Liquid Extraction," Method 501.2, EMSL, EPA Cincinnati, Ohio.

Samples for TTHM shall be dechlorinated upon collection to prevent further production of Trihalomethanes, according to the procedures described in the above two methods. Samples for maximum TTHM potential should not be dechlorinated, and should be held for seven days at 25° C prior to analysis,

according to the procedures described in the above two methods.

(f) Before a community water system makes any significant modifications to its existing treatment process for the purposes of achieving compliance with § 141.12(c), such system must submit and obtain State approval of a detailed plan setting forth its proposed modification and those safeguards that it will implement to ensure that the bacteriological quality of the drinking water served by such system will not be adversely affected by such modification. Each system shall comply with the provisions set forth in the State-approved plan. At a minimum, a State approved plan shall require the system modifying its disinfection practice to:

(1) Evaluate the water system for sanitary defects and evaluate the source water for biological quality;

(2) Evaluate its existing treatment practices and consider improvements that will minimize disinfectant demand and optimize finished water quality throughout the distribution system;

(3) Provide baseline water quality survey data of the distribution system. Such data should include the results from monitoring for coliform and fecal coliform bacteria, fecal streptococci, standard plate counts at 35° C and 20° C, phosphate, ammonia nitrogen and total organic carbon. Virus studies should be required where source waters are heavily contaminated with sewage effluent;

(4) Conduct additional monitoring to assure continued maintenance of optimal biological quality in finished water, for example, when chloramines are introduced as disinfectants or when pre-chlorination is being discontinued. Additional monitoring should also be required by the State for chlorate, chlorite and chlorine dioxide when chlorine dioxide is used as a disinfectant. Standard plate count analyses should also be required by the State as appropriate before and after any modifications;

(5) Demonstrate an active disinfectant residual throughout the distribution system at all times during and after the modification.

This paragraph (f) shall become effective on the date of its promulgation.

#### Appendix A—Summary of Public Comments and EPA Responses on Proposed Amendments to the National Interim Primary Drinking Water Regulations for Control of Trihalomethanes in Drinking Water

The following is a summary and discussion of the principal public comments to EPA's proposed regulations for the control of

trihalomethanes (THMs) in drinking water and EPA's responses to them. Many comments have already been addressed in the preamble which should be referred to for additional explanation of the agency's responses. In its February 9, 1978, notice of proposed rulemaking, EPA specifically solicited comments on the following six questions:

1. The reasonableness of the concept of phasing the application of the regulation by making the MCL mandatory initially only for large water systems and for the time being requiring monitoring only in others, and no requirements in the smallest systems. Should the regulations differentiate in their application between ground and surface water supplies? Are monitoring frequencies sufficient to identify locations with high TTHM levels?

An alternative approach on which public comments are solicited would be to make the MCL applicable to all public water systems and affect phasing of implementation by establishing a deferred monitoring schedule. Systems serving more than 75,000 people would be required to begin monitoring within one year of promulgation, systems serving between 10,000 and 75,000 would be required to begin monitoring within three years and all other communities within five years.

2. The magnitude of the MCL at 0.10 mg/l. Does the current information warrant more restrictive regulations at this time, for example, 0.050 mg/l or less? How rapidly can the MCL be reduced to lower feasible levels?

3. The feasibility and timing of the treatment modifications that will be necessary to achieve compliance. Will 18 months provide adequate time for most impacted systems to take steps to come into compliance?

4. The economic impact on large, medium, and small water systems either for the proposed regulation or for more restrictive regulations. Are EPA's estimates of the cost of compliance reasonable?

5. The concept of averaging the concentrations of the TTHMs for compliance—both the annual averaging of quarterly samples, and the averaging of representative samples within the distribution system.

6. The use of the Standard Plate Count as a more sensitive indicator of microbiological quality while treatment modifications are being introduced and the limitations on chlorine dioxide and chloramines.

In addition, the proposed regulations generated comments on other issues, including such issues as whether the States with primary enforcement

responsibility had been provided sufficient time to make State regulations consistent with the federal regulations by the effective date. The majority of commenters did not address all of the issues that were posed by EPA; many commented on just a few issues or only on a single issue.

In all, EPA received 596 written comments and 259 oral statements were presented in the eight public hearings. The total of 857 comments came from various interested parties, including 390 from water utilities, 32 from private industries, 28 from consulting engineers, 95 from special interest groups, 80 from private individuals, 33 from educational institutions, 13 from Federal government agencies, 98 from local governments, 75 from local and State health and environmental departments, and 13 from other groups including some members of Congress. An additional 496 communications from members of Congress were received and responded to directly. Many of the comments were duplicative; some commenters presented both written and oral comments, or the comments were repeated in substance by many commenters, including members of Congress. In a number of cases, commenters simply endorsed the official position taken by a particular organization. For example, 124 water utilities and local governments responded by endorsing the position of the American Water Works Association (AWWA) which recommended an alternative program for the control of organic chemical contamination in drinking water. Comprehensive comments were also received from the Coalition for Safe Drinking Water (CSDW), a member organization of both municipal and investor-owned water utilities formed specifically to comment on EPA's proposed regulations, Calgon Corporation, a large manufacturer of carbon, and the National Drinking Water Advisory Council. These and other major comments are summarized in Appendix B. The following discussion summarizes comments received on the proposed regulations and the Agency's responses to those comments.

1. A majority of public comments disagreed with EPA's proposal to limit the applicability of the TTHM MCL to systems serving greater than 75,000 people. Most commenters preferred to have all water systems included under the regulation if control of chloroform was indeed deemed necessary (many of them did not feel any regulation was necessary). Phasing-in the applicability of the regulation to smaller systems in time was also opposed by some

commenters, but a large number thought such a phasing approach to be logical.

The population cut-off of 75,000 received a total of 158 comments. Among the commenters, 132 felt that the regulations should be applied to all systems regardless of size; 22 commenters thought the population cut-off and phasing approach were reasonable. The main reason given by those who opposed the population cut-off was that they felt such an approach was contradictory to the intent of the SDWA which was to protect all persons served by community water systems. Therefore, these commenters said that if there was a health concern, all systems should be required to comply with the TTHM MCL, not just those who are served by a large water system. The commenters who thought that the population cut-off and phasing approach were reasonable cited as their reasons economic and technical feasibility, realizing that the larger water utilities would be better financed and staffed.

In response to the comments, EPA has accepted the recommendation of the National Drinking Water Advisory Council and many other commenters to broaden the coverage of the TTHM regulations to include those systems serving as few as 10,000 people and to phase-in the effective dates of the MCL by system size as follows:

- Water systems serving 75,000 or more people are required to be in compliance with the TTHM MCL within two years from the date of promulgation of the regulations.
- Systems serving between 10,000 and 75,000 people are required to be in compliance by four years from the date of promulgation.

This still means systems serving fewer than 10,000 persons are not covered by these regulations. EPA does not believe that this approach violates the intent of the SDWA to protect all persons served by community water systems. The great majority of smallest systems are served by ground water sources that are low in THM precursor content. Therefore, their drinking water is less likely to be subject to significant THM contamination. EPA is also concerned that measures taken by the smallest systems to reduce THM levels are more likely to result in drinking water of poor microbiological quality since they generally lack the expertise and access to technical assistance necessary for careful supervision of alterations in disinfection practice. Commenters are referred to the preamble to these regulations for a more complete discussion of EPA's rationale for excluding these smallest systems from

the coverage of these amendments to the Interim Regulations.

As discussed in the preamble, EPA's decision to phase-in the effective date of the MCL by system size has been based in part on the present limited laboratory capability available for TTHM analyses and the need for careful supervision of any alterations to the disinfection process. The systems in the 10,000 to 75,000 population range will be able to draw upon the experience gained by the first group of largest systems who must achieve compliance in the shortest feasible time-frame. By that time, laboratory resources and technical assistance from the States and EPA will be available to handle the increased number of systems. It was believed to be unreasonable to make the regulations effective for all systems at once for these reasons.

2. Thirty-seven comments were received on whether the regulations should differentiate between surface and ground water sources. Twenty-five opposed the idea of differentiation and said that the regulations should be based on water quality rather than water sources. Nine believed differentiation between sources was a good approach because in general ground water contains relatively less precursor material than surface water and therefore has less chance to produce TTHMs during chlorination practice. Three thought that the States should make the decision whether to distinguish between surface and ground water.

In response to these comments, the TTHM MCL applies equally to ground and surface water supplies within the population range covered. Water quality serves as the basic distinguishing factor to the extent that only those systems that exceed the MCL will be required to take steps to reduce TTHM levels in the finished drinking water. However, the monitoring requirements have been modified from the proposal to accommodate the valid concerns of some commenters that systems with relatively stable groundwater sources should not be required to incur the expense of regular monitoring where it is demonstrated that TTHM levels are not likely to approach or exceed the MCL. As discussed more fully in the preamble, the States have been accorded some flexibility to modify the monitoring requirements on a case-by-case basis under such circumstances.

3. Four comments were received on the monitoring and compliance timeframes established in the proposal. One of these commenters asked what would happen at the end of one year of monitoring for systems serving 10,000 to

75,000 people. He questioned why no action would be required if the TTHM levels exceeded the MCL. One commenter suggested that monitoring requirements be extended to systems which serve less than 10,000 population and report the results to customers as well as authorities. One commenter suggested that water systems serving more than 75,000 should start monitoring within 6 months, systems serving 10,000-75,000 should start monitoring within 1 year while the rest of the communities should begin monitoring within 3 years. One commenter felt that more discretion should be left to the States to determine which systems should be brought into compliance first.

EPA has responded to the comment concerning compliance by those systems serving between 10,000 and 75,000 persons by applying the TTHM MCL to those systems within 4 years of the promulgation of these regulations. Thus, systems in that size category that exceed the MCL would be required to take measures to reduce TTHM levels in their drinking water.

The monitoring requirements have not been extended to systems serving fewer than 10,000 people in the final regulations. Monitoring and public notification of the results were not believed to be warranted unless and until those smallest systems were also going to be required to reduce TTHM levels when the monitoring results showed that the MCL was exceeded. EPA was also concerned about the availability of laboratories for conducting TTHM analyses for the approximately 57,000 systems that fall within this size category. EPA's rationale for excluding these systems from the coverage of the MCL has already been addressed in response to other comments and in the preamble to these regulations.

The alternative monitoring timeframe suggested by one commenter was presumably intended to lengthen the timeframe that EPA had originally proposed as well as to require monitoring by the smallest size systems within a definite timeframe. In these final regulations, EPA has expanded the timeframe it originally proposed by requiring the largest systems to begin monitoring within one year from the promulgation of these regulations and the next size category within 3 years. EPA found that requiring the largest systems to begin monitoring within three to six months would not have provided adequate time for sufficient numbers of laboratories to become properly certified to perform quality TTHM analyses. An additional two years was

believed to be necessary to insure the existence of quality laboratory capability to accommodate the approximately 2,300 more systems in the next size category. EPA's reasons for not requiring monitoring by the smallest size systems have already been discussed.

With respect to the comment suggesting that the States should have more discretion to determine which systems should be brought into compliance first, this regulation does not impair the State's prerogative to give highest enforcement priority to those systems with, for example, the highest TTHM levels. However, applying a uniform effective date for the MCL to the largest size systems first insures a fair application of the regulation among systems and achieves public health protection for the most people in the shortest timeframe. While it is the State's responsibility to enforce compliance with the MCL, it is each system's responsibility to achieve compliance by the applicable date.

4. Other monitoring-related issues submitted by commenters included: Seven commenters said that the proposed timing for monitoring was inadequate; several commenters said that it was premature at this time to require the water utilities to monitor for TTHMs while other commenters urged EPA to establish a deferred monitoring schedule; and two commenters felt that the monitoring requirement and the setting of a MCL should be a two-step action including initial monitoring followed by setting the MCL. One commenter believed that it was necessary to establish an occurrence data base prior to setting a MCL and recommended that monitoring must span at least a 2 to 3 year period in order to determine the varying concentrations of these contaminants.

As noted previously, the effective date of the monitoring requirements has been extended to one year and three years for the two size categories, respectively. This extension will allow adequate time for development of laboratory capabilities. In regard to the two step approach suggested by two commenters and the establishment of an occurrence data base prior to setting a MCL, the EPA agrees with the commenter's concept and has included both steps in the regulations: monitoring followed by compliance with the MCL. A sufficient data base has been established for setting the MCL and monitoring for one year prior to the effective date of the MCL will provide more precise information on variations in TTHM levels. Of course, systems may, at their

option, begin monitoring prior to the effective date.

5. With regard to EPA's proposed monitoring frequencies for TTHMs of five analyses per quarter, 37 comments were received. Eleven comments said that the proposed monitoring frequencies were reasonable. Twenty-two felt that quarterly sampling was insufficient, and some suggested more frequent sampling, such as one sample every month. Two commenters thought the proposed frequencies were too frequent and suggested that monitoring be conducted twice a year. Two commenters suggested that the frequency should be proportionate to the population served and at regular intervals.

EPA has retained the quarterly sampling requirements of the proposal as the minimum acceptable frequency for determining the effect of differing treatment practices and seasonal variations in raw water quality on TTHM concentrations in the finished drinking water. Four instead of five samples per quarter are required based on the number of treatment plants used by the system. Thus, more samples must be taken by those larger systems most likely to utilize more than one plant. This also allows for more representative sampling since TTHM levels may vary depending upon the system's raw water source or treatment program at a particular plant. Systems may seek State approval to have multiple wells drawing raw water from a single aquifer considered as a single treatment plant for the purpose of determining the minimum number of samples.

In response to those comments seeking more frequent sampling, generally, the final regulations provide that the States may require more frequent sampling where it is necessary to insure adequate and consistent control of TTHM levels below the MCL in the water served to all consumers of the system. EPA also recognizes that, in some situations, quarterly sampling should not reasonably be required because the maximum TTHM potential in some ground waters is consistently well below the TTHM MCL. Thus, the final regulations also allow the States to exercise their discretion to reduce the monitoring frequency in those situations. The requirements of these regulations have thus been fashioned to establish a minimum regular monitoring frequency while providing for case-by-case flexibility, recognizing that the optimal monitoring frequency for TTHM control will depend largely on site-specific circumstances.

6. Many comments were received charging that EPA's action of setting a

TTHM MCL of 0.10 mg/l was arbitrary, premature and lacking in supporting data. 243 comments suggested that EPA adopt 0.10 mg/l TTHM as a goal rather than a regulation while additional data were being collected and more research on the health effects of the TTHMs was being conducted.

EPA believes that a TTHM MCL of 0.10 mg/l is adequately supported by the evidence in the rulemaking record demonstrating that THMs "may cause any adverse effect on the health of persons" (Section 1401) and that such a standard "shall protect health to the extent feasible, using technology, treatment techniques, and other means, which the Administrator determines are generally available (taking costs into consideration) on the date of enactment" of the SDWA, as required by Section 1412. Although new information will always be forthcoming on any regulatory subject, EPA must make the critical decision of when a sufficient basis is established to support regulatory action in order to comply with the protective intent of the SDWA. Citing the House Report accompanying the Act, the United States Court of Appeals for the District of Columbia Circuit has noted that "controls were not to be delayed pending the development of more refined data on health effects and more efficient detection and treatment technology" (*EDF v. Costle*, 578 F.2d 337, 344 (D.C. Cir. 1978)). As discussed in the preamble to these regulations, EPA's mandate to protect the public health to the extent feasible does not contemplate the mere establishment of "goals" which utilities may choose to ignore when the evidence demonstrates that protective action is warranted.

7. Ten comments suggested that if a MCL were to be set for TTHMs, the MCL should be 0.30 mg/l. Other comments suggested higher TTHM MCLs than EPA's 0.10 mg/l ranging from 0.25 mg/l to 15 mg/l. Although most of these suggested MCLs were offered without supporting data, two commenters submitted suggested MCLs based upon their own studies or formulas. One commenter suggested a MCL of 0.3 mg/l for chloroform based upon his studies on dogs, rats and mice in the laboratory while another commenter calculated an MCL for chloroform in drinking water of 0.429 mg/l. Thirty-four comments supported the proposed MCL of 0.10 mg/l for TTHM while 11 comments said that a MCL of 0.10 mg/l should be lower but did not provide supporting data.

In establishing a TTHM MCL of 0.10 mg/l as an Interim Regulation, EPA has

struck a reasonable balance between requiring the reduction of TTHM levels in drinking water to protect the public health and what public water systems could reasonably have been expected to achieve in 1974, taking into account technological and economic feasibility. EPA has also been mindful of the fact that corrective measures taken to comply with a TTHM MCL have the potential for adversely impacting the microbiological quality of a system's drinking water. Although technologies are available to reduce TTHM levels below 0.10 mg/l, EPA believes that a more stringent standard at this time would unnecessarily jeopardize the overriding need for quality disinfection. Moreover, EPA expects that many systems striving to comply with the standard of 0.10 mg/l will, in fact, achieve lower TTHM levels as well as a reduction in other potentially harmful disinfection by-products. Thus, EPA's approach to the regulation of THMs, as discussed more fully in the preamble to the regulations, has been both deliberate and cautious.

EPA does not believe that a less stringent MCL is warranted. Based upon EPA's occurrence data, if a less stringent standard were established, very few systems would be required to reduce the TTHM levels in their drinking water, resulting in no improvement of water quality served to their consumers. While this would relieve many systems from any costs, it would clearly not further the protective intent of the SDWA. EPA has determined that treatment methods have been generally available since 1974 at reasonable cost to reduce TTHM levels to 0.10 mg/l, and therefore, a higher standard would not be justified.

As to those commenters who suggested that an MCL of 0.3 mg/l for chloroform could be computed as a "safe" level for human consumption by incorporating an uncertainty factor of 2,000 into Roe's "no observed effect dose." EPA has concluded that such an approach is inappropriate when dealing with human risk from chronic exposure to a potential carcinogen. That approach assumes the existence of a threshold level below which no risk would exist. It is thus inconsistent with the principles stated by the NAS in its report, "Drinking Water and Health". In addition, 0.3 mg/l is well above the levels that are currently achievable in the large majority of public water systems by generally available methods that are technically and economically feasible. Roe's study has been specifically addressed elsewhere in this Appendix.

8. Sixteen comments responded specifically to the question of whether the current information warrants more restrictive regulations at this time and how rapidly the MCL could be reduced to lower feasible levels. Except for one commenter who said that a TTHM MCL of 0.05 mg/l would be technically feasible today at reasonable cost, the other 15 commenters all said that a more restrictive regulation was unnecessary due to questions regarding the health basis of 0.10 mg/l. Further, they expressed serious doubts that a much lower MCL could be met without extensive modification in treatment processes. Several comments disapproved of the agency's intention to make the MCL more stringent in the future, noting that it might be difficult for water utilities to cope with a moving target since the economics of system improvements frequently depend upon the level of control sought. State activities would be seriously disrupted because utilities would have to re-modify their treatment processes whenever new standards were set (modifications would require State approval), and the States would have to change their regulations to retain primary enforcement responsibility.

EPA has already explained its rationale for not imposing a more restrictive standard for TTHMs at this time in its response to other comments and in the preamble to these regulations. EPA's health basis for these regulations is also discussed elsewhere in the preamble and in this Appendix. EPA agrees that reducing TTHM levels to 0.05 mg/l would necessarily result in increased costs greater than those estimated to achieve EPA's MCL of 0.10 mg/l; it is, however, EPA's concern for the potential adverse impact on disinfection practices and microbiological quality rather than the increased cost that has let EPA to conclude that a more stringent standard is not justified at this time.

When EPA establishes Revised Primary Drinking Water Regulations, the Act clearly authorizes and indeed requires, more stringent and more comprehensive regulations of those contaminants which may have an adverse effect on human health, including TTHMs. Congress contemplated that, as new technologies were developed to reduce the level of contaminants in drinking water, EPA's regulations would be reevaluated accordingly. Since new information regarding health effects and treatment technology will continue to be generated, it would be unrealistic to expect that EPA's requirements would

remain static. However, EPA recognizes the increased burden placed on water utilities and the States when more stringent regulations are promulgated; when this occurs, adequate opportunity for public comment and time for compliance with any more stringent regulation will be provided.

9. On the question of feasibility of compliance with EPA's proposed TTHM MCL, three commenters said that more research is needed to study the feasibilities of different treatment processes for the removal of TTHMs. One expressed the need for EPA's assistance in evaluating the appropriate treatment for his system. One suggested that ozone in combination with a chlorine residual, when the two are properly used together as part of a total treatment scheme, often results in a significant reduction in the ultimate TTHM levels. One said that granular activated carbon (GAC) is good for TTHM removal as well as taste and odor control. One stated that the type of treatment modification used for compliance with the MCL should be determined by the water utility.

EPA believes that despite the ongoing research being conducted on control of THMs in drinking water, sufficient evidence exists to demonstrate that technology and treatment methods were generally available in 1974 at reasonable cost for water systems to achieve TTHM levels of 0.10 mg/l. Such methods include both relatively inexpensive alterations of a system's disinfection practices, which will be sufficient in most cases to reduce TTHM levels to below the standard, as well as more complex treatment modifications, such as those suggested by two commenters. EPA's findings regarding the feasibility of TTHM control are fully set forth in the report "Interim Treatment Guide for the Control of Chloroform and Other Trihalomethanes," which has been incorporated by reference as part of the Agency's Statement of Basis and Purpose for these regulations.

A 1978 report prepared by J. S. Zagorski, G. D. Allgeier and R. L. Mullins, Jr., "Removal of Chloroform from Drinking Water," studying the reduction of chloroform formation upon subsequent chlorination, reported that various common treatment processes including sedimentation; sedimentation followed by chemical coagulation and precipitative softening; sedimentation, chemical coagulation, precipitative softening and rapid sand filtration; and sedimentation followed by chemical coagulation, precipitative softening, rapid sand filtration and GAC

adsorption resulted in substantial reductions of the chloroform formation potential. They also reported that both alum and polymers at moderately large dosages were capable of reducing the potential of Ohio River water to form chloroform and other THMs. Both ozonation and powdered carbon at high doses also reduced THM formation potential. In the plant-scale studies, the same investigators also reported that moving the point of chlorination from the head of pre-sedimentation reservoirs to the head of the coagulation process significantly reduced the concentration of  $\text{CHCl}_3$  in finished water, and that ammoniation at the head of precipitative softening ceased the THM formation reaction and markedly reduced the level of THMs in softened water. Aeration also was able to reduce chloroform in finished water.

As explained in EPA's response to other comments and in the preamble, in light of currently available information, EPA need not wait for the results of additional research before establishing regulations to control TTHMs. Rather, any new information will be considered by EPA when it develops Revised Primary Drinking Water Regulations.

EPA agrees with the comment that the type of treatment modification used to comply with the TTHM MCL must be determined by the water utility that has the ultimate responsibility to select a method for achieving compliance. Many commenters appeared to erroneously confuse the TTHM regulation with EPA's proposal of a specific treatment technique for control of pollution-related synthetic organic chemicals in drinking water. Nevertheless, technical assistance will be provided by EPA and the States on a case-by-case basis. Systems that modify their treatment processes to comply with the TTHM MCL are also required to obtain State approval of their plans prior to implementation to insure proper supervision of alterations in disinfection practice.

Significant reductions in THMs can normally be achieved by making relatively minor modifications to existing water treatment systems, such as maximizing the efficiency of precursor removal during coagulation/filtration or changing the point of chlorination. Where minor modifications to existing treatment methods prove insufficient to bring the system into compliance with the MCL, the system may need to use an adsorbent technology, such as GAC, to reduce precursors and thereby achieve compliance with the MCL. Thus, each system will probably be using a

combination of the available treatment options that will be most effective for its situation. Because of these treatment alternatives, total reliance upon an adsorbent for reduction of the THMs to below the MCL will not likely occur. The EPA has estimated that of the approximately 2,700 systems serving more than 10,000 people required to comply with the MCL, approximately 25 systems may ultimately need to install adsorbent technology to control THMs.

10. One commenter stated that GAC has never been tested or proven in full-scale operation in the United States and therefore constitutes a nationwide experiment in water treatment.

The availability and efficacy of GAC technology has been clearly demonstrated by the large extent of use by numerous facilities in the United States as well as overseas. GAC technology has been used for many years in the water treatment industry, and today over 60 drinking water plants presently use GAC in their treatment facilities. Extensive use of GAC is practiced in the food and beverage industry for removal of organic contaminants from process waters and in the treatment of industrial and municipal waste waters prior to discharge to receiving waters. GAC for removal of organic chemical contaminants has been in use by numerous European municipal drinking water plants since the 1960's and as industrial activity continues to increase, more facilities using GAC are being installed.

Most drinking water plants in the U.S. have been using GAC as a replacement for the media in their existing filters for the stated purpose of removal of taste and odors. However, with the development of more sophisticated analytical procedures which are capable of detecting and measuring levels of organic chemicals (including THMs and THM precursors) in drinking water, EPA now knows that such chemicals are actually being removed by GAC and that their presence, previously undetectable by analytical measurement, was being manifested through taste and odor problems.

Commenters nevertheless question the availability of means for the regeneration of GAC and use of GAC in post contactors for removal of organic compounds. Regeneration of GAC has been demonstrated in numerous locations including a full scale operation at a drinking water facility in the late 1960's in the U.S. Some European drinking water plants have also been regenerating GAC for several years. The frequency at which drinking water plants in the U.S. replace the GAC

ranges from less than six months to two to three years. The GAC is usually removed from the facility and replaced by virgin carbon.

In addition to its use by numerous and varied types of drinking water systems in the U.S. and overseas, GAC has been widely and successfully used for the treatment of municipal waste waters for removal of organic chemical pollutants. For example, since the mid-1960's, the municipality of Lake Tahoe has used GAC in contactors with on-site regeneration. Thus, regeneration technology has been applied both on site and at central furnace facilities. Frequency of regeneration will necessarily be dependent upon TTHM reduction needed on a case-by-case basis. Numerous drinking water treatment plants are presently operating modules of full scale GAC systems or pilot plants to more fully correlate GAC performance with various regeneration frequencies.

11. One commenter stated that the GAC treatment process may result in serious problems and these may outweigh the alleged environmental benefits associated with GAC treatment. These problems include potential air pollution from regeneration and the waste water associated with air pollution scrubbers as well as waste water from backwash and drainage from carbon slurries.

GAC is normally regenerated at furnace temperatures of 750° C to 900° C and at these temperatures, data do not show that most pollutants are oxidized to other than harmless compounds. EPA has considered potential waste disposal problems including air and water pollution relating to GAC reactivation and has found that techniques are available to control wastes from these facilities.

In regard to discharge of backwash water or drainage from carbon slurries (if at the water treatment plant), no additional water is expected to be necessary. In fact, less water is normally used in backwashing with GAC than with conventional media in the filter. Any drainage from carbon slurries at the off-site GAC regeneration facility is not large in volume and normally is discharged to municipal treatment plants.

12. Several commenters were concerned that the use of GAC may constitute a larger health hazard than means for improvement of water quality. The alleged health hazards associated with GAC included desorption, chromatographic effect (competitive displacement), resorption (leaching) of heavy metals and polycyclic aromatic hydrocarbons contained in the virgin or

regenerated carbon, release of carbon fines, promotion (catalytic reactions) on the carbon itself of hazardous compounds due to chemical reactions between chlorine and organic compounds, bacterial growth on the carbon and air pollution from regeneration facilities. Commenters also noted that indirect hazards were associated with GAC usage through the manufacture of GAC and the production of energy necessary to operate GAC facilities. They said these industries, such as the coal industry, pose a high risk of morbidity and mortality to the workers. Because of these concerns, they urged that additional research and testing should be conducted prior to implementation of GAC in this country's major waterworks. It was suggested that toxicological evaluations be conducted using concentrated effluents from GAC to assess these potential hazards.

EPA has evaluated the potential hazards associated with the use of GAC. The items listed can be shown to occur under specific laboratory conditions directed at obtaining a specific reaction, such as the promotion reaction or the chromatographic effect, but no significant hazard is expected under actual use conditions so long as proper operating procedures are followed. For example, use of GAC for THM control will not result in desorption of TTHM to levels above the MCL since the GAC would be regenerated at the point where THM levels in the effluent approached those in the influent. Also, bacterial growth on GAC is common, is frequently encouraged by adding oxygen to the influent waters, and assists in reduction of precursor compounds. Control of bacteria in the finished drinking water is effectively accomplished by disinfection and the alleged slugs of bacteria breaking through the GAC do not occur with proper operation; in any event, proper disinfection with a residual throughout the distribution system would eliminate this potential hazard.

In addition, present data have not shown a health hazard associated with the use of GAC in its many applications in drinking water treatment. Nevertheless, EPA is continuing to conduct research on these questions. For example, short term bioassay studies are being conducted with animals using concentrated raw and finished waters to assess the toxicological significance of various disinfectants, such as chlorine and ozone, and the use of various treatment technologies, including GAC. However, the methodologies used in these studies are only now being developed and must be verified by more established methods.

13. Twenty-seven comments were received discussing the proposed effective date of the TTHM regulations. In general, the commenters thought that the compliance dates for either the monitoring requirement or the MCL were unreasonable. A number of these commenters had apparently confused the effective date for the TTHM regulations with that for the treatment technique requirement and commented accordingly.

Specifically, 11 commenters said the allowed time for compliance with the proposed regulations was unreasonable without specifically referring to whether the comment was addressed to the monitoring schedule or the MCL. Nine commenters, however, submitted specific time-tables that they felt would be required for compliance with the proposed TTHM regulations ranging from monitoring beginning 3 months after promulgation of the regulations to as long as 8 years for the completion of plant modifications.

One commenter submitted his suggestion of a specific time-table including the following: (1) Request for variance or exemption should be submitted no later than the effective date, (2) design specifications should be submitted to States for approval no later than 18 months after the effective date, (3) by no later than 24 months after the effective date, final design plans and specifications should be submitted to States for approval, (4) construction should be completed and operation should begin no later than 4 years after effective date, and (5) operational data should then be submitted to States for evaluation. One commenter suggested postponement of the regulations and instead conducting a two-year comprehensive monitoring program. One commenter felt that the proposed time-table of the TTHM regulation was adequate.

Thirty-four commenters said that EPA's proposed effective date, allowing 18 months for compliance, was unreasonable and that it was technically impossible for systems to design the most cost-effective treatment system within that timeframe. These comments suggested allowing additional time for compliance, ranging from 3 to 7 years. Four thought the allowed time of 18 months was adequate. Three said the regulation should be more flexible with regard to the time for compliance and the type of treatment modification used and suggested that the States make these decisions. One commenter said that the allowed 18 months was adequate if only minor modifications were needed but that additional time

would be required if major changes to the treatment plant were needed. Another commenter said that whether the allowed timing was adequate would depend upon whether the particular water system would need to use GAC to remove TTHMs. One stated that the primacy States should have a minimum of two years to revise their regulations to be consistent with the regulations finally adopted by EPA before they became effective requirements for the water supplies. One commenter said that although the proposed timing was feasible, in most cases, the final regulations should provide for a delay in the effective date for systems that could show the need for additional time. One commenter said that the proposed compliance schedule was appropriate if the MCL were established at 0.30 mg/l.

EPA has responded to the comment seeking more time to achieve compliance by extending the effective date of the TTHM MCL for systems serving more than 75,000 people to two years after the promulgation of these regulations. Systems serving between 10,000 and 75,000 people have been given four years to achieve compliance with the MCL. Both dates take into account the need for one year of monitoring data to be established and the need for adequate time to develop quality laboratory capability for TTHM analyses. The two-year effective date of the MCL for the first size category also serves to provide primacy States with sufficient time to amend their regulations before the MCL takes effect. In the meantime, EPA will not allow State primacy to be needlessly jeopardized. The Agency will be proposing regulations shortly as amendments to 40 CFR Part 142 which will allow for a reasonable amount of time for States to conform their regulations to the federal requirements.

The extended timeframes suggested by some commenters do not appear to be warranted for applicability to all systems. It appears that these commenters may have been erroneously assuming that GAC was being required for control of TTHMs in all cases. On the contrary, EPA believes that most systems will be able to achieve compliance with the TTHM MCL of 0.10 mg/l with relatively minor changes to their existing treatment processes. Therefore, the timeframe provided in the final regulations should provide ample time for compliance measures to be implemented. However, EPA recognizes that additional time may be needed by those few systems that will need to institute more complex treatment modifications to comply with the TTHM

MCL. In such cases, Section 1416 normally provides for the issuance of exemptions. Due to the belated issuance of these amendments to the Interim Regulations, an extension of the compliance deadlines presently established in Section 1416 will be needed to authorize exemptions from the TTHM MCL. EPA will seek a legislative extension of the exemption deadline. So long as good faith efforts are being taken by systems to comply with the TTHM MCL, EPA and the States may exercise their enforcement discretion to insure compliance as expeditiously as practicable.

14. Seventy comments addressed the specific cost estimates for installation of the technologies as well as the projected national cost impacts of the regulations. The majority said that EPA's estimates were not reasonable and that the actual costs would be considerably higher. A few comments felt that the costs were reasonable or "in the ball park."

Of these comments, 32 stated that the costs for installation of the technologies were low while five thought that the estimates were reasonable. Some of these felt that the EPA estimates in most cases did not conform to local economic conditions. Other commenters said the EPA's costs were underestimated and submitted cost estimates for their particular utilities in support of their argument. They indicated that compliance with the MCL would require far larger investments by the utility than those estimated by EPA. In addition, one commenter provided data showing that the cost impacts would be higher because his public water system used 225 gallons per capita per day (gpcd) as compared to the 179 gallons per capita per day used by EPA in the estimates. The commenter also used maximum daily and hourly flows of 240 percent and 390 percent of average daily flows, respectively, and 65 percent of the total year's flow occurred during the four summer months.

EPA's analysis of the cost and economic impact of the final regulation is discussed in the preamble and described in detail in the "Economic Impact Analysis for a Promulgated Regulation for Trihalomethanes in Drinking Water". The costs of treatment are based upon average national costs and were determined from an analysis of the costs of materials and labor rates in various parts of the United States. The costs of treatment represent those of an average size utility in each of several size categories, and serve as the basis for assessment of the national cost impacts. It is expected that some utilities would experience costs that are

higher than the average system in its size category, while others would be lower. In order to reflect site-specific factors for a utility, contingency factors are incorporated into the treatment cost estimates.

The base flows used in the cost analysis are values representing the average flow conditions for a certain size range of systems. The values are based upon a recent survey of 1,000 water systems in the United States during which it was determined that larger systems have higher water usage per capita than do smaller systems. This is a result of commercial and industrial customers. Thus, a different flow base was used for each size category ranging from 155 to 210 gpcd for systems serving one million persons or more. Capital costs were based upon capacity flows and O&M costs were based upon average daily flows. The exception was that capital costs of GAC were based upon the average day in the peak month which was less than the capacity flow. Commenters are referred to EPA's document "Economic Analysis" for further details.

15. One comment noted that it was difficult to determine whether EPA's estimates of the cost for compliance were reasonable. He felt that debt service, the additional water treatment plant personnel laboratory assistance and control, and more sophisticated monitoring equipment, were not adequately considered. One commenter stated that it would cost \$20,000 to \$30,000 per year to conduct monitoring for his utility. Four said that the compliance cost for TTHM analyses estimated by EPA at \$25 per sample was low and that the current rate for commercial TTHM analyses was approximately \$100 per sample exclusive of sampling and delivery costs. Two other commenters suggested that prices of \$75 and \$120 per sample, respectively, were appropriate. Three commenters agreed with the EPA's estimation of monitoring costs.

EPA's analysis of the costs of treatment specifically considered each of the items of concern to the commenter. Debt service is included in the annual costs (revenue requirements) and includes interest rates on capital of 8% and 10% for public and privately-owned utilities, respectively. The rate for privately-owned utilities was revised from the 9% rate used in the cost estimates supporting the proposed regulations to take into account the current and projected cost of capital. Additional plant personnel were included in the O&M costs and thereby in the annual costs.

In regard to monitoring costs, the total required monitoring costs were estimated to be \$800 per year per system based upon four samples per quarter. As noted in the preamble, monitoring costs for some systems will be higher than \$800 per year because these systems have more than one plant, thereby necessitating (in some cases) additional sampling. This cost estimate included costs of analysis at \$50 per sample. The cost of sampling and mailing samples to an outside laboratory was not considered to be significant. No additional sophisticated monitoring equipment was included in the estimate; however, it was anticipated that many systems would purchase analytical equipment to perform their own analyses. While commercial rates for TTHM analyses varied from \$25 per sample to more than \$100 per sample, \$50 was used as a reasonable estimate and this was increased from the value of \$25 per sample used in the proposed regulations. However, it is expected that the cost per sample will likely be lower, since increased availability of analytical services, competition between laboratories and the increased number of samples for analyses will provide opportunities for cost-savings.

In addition to the costs associated with the required monitoring, additional costs will be incurred by some systems in the monitoring conducted to assure that the bacteriological quality of the drinking water will be maintained during and after treatment modifications for the purpose of reducing THM levels. Costs of this monitoring will vary between systems but will not likely exceed approximately \$5,000 at systems with the most extensive monitoring program. This estimate was based upon use of outside contract laboratories, and it is expected that most water systems will conduct some of the analyses in their own laboratories, thereby reducing the costs. Nevertheless, this cost is considered reasonable for those systems which will need the most extensive monitoring (e.g., for systems serving 10,000 people, this cost would be \$0.50 per person), and is a one-time expense (as opposed to continued requirements for quarterly TTHM monitoring).

16. One commenter said that the use of a forty-year amortization period to determine the yearly cost for capital improvements was unreasonable in that the life of the water treatment facility would be considerably less than 40 years.

Forty years was used as representative of the average expected life of equipment in public water systems. While some equipment may

require replacement sooner than 40 years, other equipment has a life greater than 40 years. While privately-owned utilities often depreciate equipment at a 20-year rate, this is primarily for tax advantages and does not represent the true life of the equipment. Publicly owned utilities most often use rates of approximately 40 years since no tax advantages are available. Since over 80% of water systems are covered by this regulation and are publicly-owned, it is reasonable to use the 40-year amortization period as the basis of annual costs.

17. One commenter said that EPA's use of \$5.58 per hour for labor in its EPA cost estimates was too low, stating \$7.00 per hour for labor cost would be more appropriate. The cost estimates have been revised and now include labor costs at \$11.75 per hour including fringe benefits. In addition, it should be noted that contrary to the commenter's statement, the proposed regulations were based upon an average labor cost of \$7.50 per hour.

18. A number of commenters argued that the costs were underestimated because of specific factors in the analysis. For example, one commenter stated, based upon the use of GAC, that the difference between his potential national cost estimates and EPA's estimates could be explained primarily by four factors. It was not clear to what extent these comments differentiated between costs for GAC for TTHM control and costs for GAC to control other synthetic organic chemicals in the separate treatment technique requirement. The four specific areas of difference noted by this commenter and EPA's responses are as follows:

(a) EPA determined its estimated capital costs for a system based upon the capacity of the entire system; whereas, the commenter estimated the system capital costs as equal to the sum of the capital costs for each treatment plant based on the capacity of each plant.

The EPA recognizes that several large public water systems use more than one treatment plant and thereby might be required to install necessary treatment at each plant if they utilize the same or similar source waters. Due to the limitations of available data, the cost estimates were based upon installation of treatment for the total flow capacity of each water system, rather than separate flows from each plant. EPA does not believe that per plant costs would significantly affect the national cost estimates. Treatment costs depend upon flow capacity whether apportioned per plant or taking the system as a whole. In some cases, costs could be

reduced if only the flow from a single plant required treatment to reduce TTHMs. These effects have been taken into account by including contingencies in the cost estimates. Moreover, since it is generally the larger systems that have multiple plants, additional costs of treatment will be borne by a greater number of customers, reducing the per capita impact.

(b) EPA's estimates were based upon the system capacity on the average day of the peak month; whereas, the commenter's estimates were based upon the actual capacity of each treatment plant.

As presented in the cost analysis and discussed above, costs were determined based upon system capacity except for the use of GAC which was based upon the average day in the peak month. This was determined to be an appropriate cost base rather than total plant capacity because compliance with the MCL will be based upon a running annual average of average quarterly monitoring results and not a peak value.

(c) EPA assumed that some of the affected systems would design facilities for a 9-minute empty bed contact time (EBCT); whereas, the commenter assumed that all GAC facilities would be designed for an 18-minute EBCT.

It is anticipated that for most systems, 9 minutes EBCT will be adequate to achieve the MCL. It is possible that certain systems may require additional contact time but use of an average condition is entirely appropriate in the development of a national cost estimate. Use of 18 minutes EBCT as the base of the national cost estimate would have inflated the costs unrealistically.

(d) The commenter's estimates for specific systems, based on the costing out of the individual components, were 30-80% higher than EPA's proposed estimates.

As stated previously, EPA's cost estimates have been substantially revised to take into account many of the commenter's concerns. The cost estimates have been based upon the most accurate and recent sources of information and cost data available and that have been reviewed within the industry. Differences between the commenter's costs and EPA's proposed cost estimates were primarily due to differences in the base year for the estimates (EPA was 1976 dollars and the commenter was 1978) and differences in EBCT (9 minutes vs. 18 minutes). In any event, the commenter's detailed estimates have been evaluated and the EPA estimates have been revised appropriately.

The commenter's O&M cost estimates were higher than EPA's primarily

because they were based on expenses at multiple treatment plants. Certain specific costs, such as the price of GAC and fuel costs, also account for portions of the differences and have been revised in the final cost analysis. EPA's GAC costs were based upon current and projected costs and ranged from \$0.65 to \$0.84 per pound of GAC depending upon the size of the public water system. Fuel costs were also projected and included estimates for 1980 of \$0.84 per gallon for diesel fuel, \$0.0038 per cubic feet for natural gas, and \$0.038 per kilowatt-hour for electricity. The commenter's revenue requirement estimates were higher than EPA's primarily because of the higher estimates of capital and O&M costs.

19. Two comments stated that the costs were understated because the increased demand for materials required to comply with the regulations would cause costs to rise beyond normal inflation rates. This concern has been evaluated and, as shown in the economic analysis, no single chemical or component of any of the available treatment technologies is expected to experience a sufficiently large demand so as to affect its price. For example, the initial demand for GAC (to meet these regulations) is estimated to be four million pounds whereas the industry has excess GAC capacity of more than 100 million pounds per year.

20. One commenter stated that the EPA estimates did not include costs for land that would be necessary for installation of the GAC facilities. As shown in the economic analysis, costs of land acquisition were included in the capital cost estimates.

21. One commenter indicated that the EPA's estimates were based upon 1976 costs. He felt that approximately 20 percent increase was needed just due to elapsed time to date (1978) and that at the time of construction of needed facilities, another 50 percent inflationary increase would be applicable.

EPA's costs have been revised to reflect anticipated use of 1980 dollars to meet the regulations. The estimates were increased to 1980 dollars through the use of the available cost indices which included separate indices for labor, steel, excavation, concrete, manufactured equipment, pipes and valves, electrical and instrumentation, housing, and producer prices. These indices took into account anticipated inflation to 1980 and the precise index values are presented in the economic analysis and supporting documents. Overall, unit costs have been increased by approximately 36% as a result of this change from 1976 to 1980 dollars.

22. A number of commenters stated that the use of GAC will have

substantial financial impact upon water supplies and that actual costs are very difficult to predict and are understated. For example, the average capital cost for a system serving over one million people was alleged to exceed \$106 million with annual costs of more than \$23 million. These commenters estimated that rate increases for residential customers would be in the range of 40-70% and that these rates could double where there were site-specific problems, such as land acquisition. The commenters claimed that these costs may result in insurmountable problems at some utilities in obtaining financing for GAC treatment facilities. They charged that EPA's assessment of the feasibility of financing the GAC treatment facilities was totally out of step with the realities of both the financing markets and operating needs of the public utilities.

Costs for GAC treatment are highly dependent on the substances being removed and the target level in finished water. The use of GAC to control THM precursors would not require the most stringent design and operating characteristics in most cases. Thus, the cost for this application would likely be very much less than the cost for using GAC to control synthetic organic chemicals. As noted in the preamble, EPA's cost estimates for using GAC for TTHM control were revised from those costs supporting the proposed regulations. For purposes of the economic analysis supporting this final THM regulation, EPA estimated the costs for a system using GAC by replacing its existing filter media with GAC and regenerating its carbon no more frequently than once every 12 months. Only systems with severely contaminated raw water sources will require the extent of GAC usage that the estimates accompanying the original proposal were based upon (post-filtration contractors with two month regeneration cycles). The data indicate that in most cases the raw waters were relatively uncontaminated and this was used in determining feasibility of treatment and reasonableness of costs for purposes of establishing the MCL. Thus, the revised costs are significantly lower than those in the economic analysis of the proposed regulations. Of course, the economic impact analysis is based upon a specific model system and costs will vary depending upon specific details at each site. To a reasonable extent, site-specific factors were included in the revised analysis and EPA's supporting economic document should be consulted for details. The document also examined the feasibility

of financing and found that financing is available.

23. Nine commenters said that the cost estimation should be more realistically based upon results from controlled experiments such as field studies. As the commenters suggested, one of the primary factors considered by EPA in developing the cost estimates has been the engineering application of the available treatment technologies. EPA has revised its cost estimates to reflect the engineering costs developed by Culp, Wesner, and Culp, consulting engineers with extensive experience in water treatment technology.

24. One commenter stated that the costs for GAC did not include the investment necessary for disposal of the concentrated organics removed from the off-gases by either landfill or underground injection. The cost estimates for use of GAC are based upon off-site regeneration, and all aspects of regeneration of GAC, including disposal of scrubber waters and other waste products were taken into account.

25. Two commenters stated that the cost estimates were low because EPA did not include the costs of installation of conventional treatment (coagulation, sedimentation, filtration) followed by THM control. The commenters indicated that some water supplies use sources from such places as the Adirondacks which do not necessitate conventional filtration but have TTHM levels at 150 to 250 mg/l. One of the commenters stated that for his system, which serves 140,000 people, to meet the MCL filtration would have to be installed at a capital cost of \$12 million, an annual cost of \$1.3 million, and a rate increase of 60 percent.

Most public water systems use conventional treatment technology and thus EPA's cost estimates included only those treatment technologies that are additions or adjustments to such conventional treatment. It would not be appropriate to include the costs of conventional technology in these regulations since, in most cases, compliance with other requirements of the NIPDWR (e.g., turbidity) necessitate use of conventional treatment. Therefore, the cost of conventional treatment should not be directly attributable to this regulation. Nevertheless, many of these systems are expected to be able to comply with the regulations through adjustment of chlorination procedures or use of an alternate disinfectant.

26. One commenter stated that the economic impact assessment did not take into account the costs of treating waste water from GAC operations, such

as backwash waters, wet scrubbers and drainage from carbon slurries. It was estimated that 50,000 gallons of waste water will be generated for every one million gallons of drinking water treated and half of that amount would need to be discharged. This commenter concluded that this would result in increased flows and an approximate 4% increase in operation and maintenance costs at municipal waste water treatment facilities.

EPA's estimates did take into account disposal of any additional waste waters from the use of GAC. For example, the cost estimates were based upon regeneration of carbon at an off-site, privately owned, regeneration facility. The costs of regenerated carbon utilized in the estimates were based upon actual manufacturer's estimates and operating rates. Overall rates included costs of GAC regeneration and all ancillary activities such as air pollution control and disposal of waste waters.

27. Several commenters stated that the estimates were low because EPA did not include the administrative, environmental, overhead, and political costs of implementing the regulations. Two of these commenters felt that additional dollars would be required for such items as cost of processing variances, public hearings, research costs into health and treatment aspects of the regulations, monitoring compliance, laboratory instrumentation and facilities, and laboratory certification programs.

The Agency agrees that each of the above items has some degree of costs associated with it and has taken appropriate costs into account in the revised cost estimates. Systems would not be expected to conduct research into the health aspects of the regulations, and only research into treatment aspects to the extent necessary to determine which treatment would be most effective in meeting the MCL. Costs attributable to administrative or legal (or political) factors, processing variances, and public hearings are difficult to precisely estimate. They have been included in appropriate parts of the estimate. Thus, administrative and legal costs have been included in the engineering costs at a rate of 12% of the total treatment cost. Some of the overhead costs have been included in the O&M costs which include labor rates with fringe benefits. Further, costs associated with monitoring have been included in the monitoring costs; environmental costs have been considered in GAC regeneration costs which would take into account such items as air pollution control equipment

and disposal of by-products; finally, any other costs not included in those components of the total cost have been included in the contingency added to the costs.

28. One commenter said that the costs associated with the treatment cost analysis were inflated. He stated that the cost analysis was based upon NOMS data which averaged values of THM concentrations measured in over 100 finished water supplies across the United States. The commenter believed that the cost analysis should have been done in two phases: one for summer conditions and one for winter, using quenched values for all 117 cities, and measured at the point in the distribution system most distant from the source to accurately measure the THM concentration reaching the consumer.

EPA's national cost estimate has been based upon NOMS which is the most recent available data base with regard to the levels of THMs in finished drinking water supplies. Certainly a more refined and extensive survey would provide a higher degree of confidence for its estimates; however, for the purposes of assessing the national cost impact of these regulations, the NOMS data base was felt to be a reasonable representation of THM occurrence.

29. One commenter estimated that the cost to the consumers in his system could increase 50 to 75 cents per 1,000 gallons and the needed treatment modifications would also result in reducing his filter capacity up to 70 percent. Other estimated rate increases reported by several commenters reached as high as 120 percent, while it was stated by one commenter that a 5.4% increase would be necessary for his utility.

EPA's projected national capital expenditures total \$85 million in 1980 dollars resulting in a overall rate increase of 2% which is a considerable reduction from EPA's original estimates. EPA's original estimates were \$154 million (1976 dollars), equivalent to \$210 million in 1980 dollars, and included only those impacted communities larger than 75,000 population. EPA's revised cost estimates now include those communities between 10,000 and 75,000 population, and assume that a total of 515 water systems would be required to institute some type of change in current processes. Fewer systems are expected to use the more expensive treatment technologies. Available technologies range from no-cost or very low cost changes such as improving coagulation or moving the point of chlorination (172 systems estimated), to low to moderate cost changes, such as modification of

the disinfectant (319 systems estimated), to high cost changes, such as use of an adsorbent like GAC (24 systems estimated).

EPA restructured its decision tree based upon several factors regarding the treatment technology alternatives that are available to meet the MCL and the number of systems by size that would be likely to modify or install treatment because they exceeded the MCL. It is not anticipated that the existing filter capacity, as suggested by the commenter, would be reduced by application of these technologies. These projections have been derived based to a large degree upon information received during the comment period. For example, considerably wider use of chloramines and less usage of GAC is expected to be selected to reduce THMs. Primarily, for those reasons, the cost estimates have significantly changed, and the typical costs per family (i.e. residential bill increase) are expected in the range of \$1.40 per year. In those few cases (24) where GAC is necessary, costs per family have been estimated to be up to \$11.20 per year, less than \$1.00 per month. After review of existing rates, rates for other utilities, and the specific costs involved, EPA does not believe that such increases will have an unreasonable impact on a family budget.

30. Twenty commenters thought that the monitoring costs were excessive for the water utilities to pay and they felt that the federal government or EPA should conduct or fund the monitoring program. One questioned whether Federal funds would be available to assist in the additional financial burden of the regulations. However, another stated that no federal grants should be issued to public water systems because of their prior record of providing services and supporting themselves from their own resources.

Monitoring costs required by these regulations amount to approximately \$800 per system per year. These costs are not considered to be excessive; for example, minimum cost per capita for monitoring for systems serving 10,000 people will be \$0.08 per year and for systems serving one million people, \$0.0008 per year. As noted above, the costs associated with this regulation generally are not significant and federal financial assistance should not be needed in the size range covered by this regulation. If it is needed, federal financial assistance programs are available for public water system improvements. It is also probable that in many cases the States may provide analytical services for their communities.

31. One commenter was concerned that compliance with the regulations by systems that will require major modifications would be difficult because of the economic and social burden; the commenters also questioned how the regulations relate to the President's urban policy. Several commenters were concerned that the burdens of increased water rates would be difficult for those least able to afford it; that is, low income and high unemployment groups, minorities, and retirees. One felt that the required rate increases for both normal system maintenance and to meet the regulations might not be supported by the customers, concluding that this could eventually result in deterioration of the water supply facilities because the cost of meeting the regulations would take needed capital away from maintenance type programs. One felt that the cost of the regulations would take money away from the needy and could result in poorer and less nutritious diets.

Because of the relatively low costs associated with these regulations, the impact on consumers' other needs are not considered to be significant. EPA believes that providing healthful drinking water must be a high national priority and that these regulations do not conflict with the President's urban policy.

32. A commenter said that it was not clear that GAC would effectively reduce TTHM concentrations more than movement of the chlorination point or changing disinfectants; the choice of installing GAC filtration by water treatment plant managers might produce only slight reduction in TTHM concentrations at a very high cost and therefore might not be a feasible alternative.

EPA estimates that GAC will only be used by about 25 systems to comply with the MCL because less expensive technology alternatives are available, such as changing the point of chlorination or using an alternate disinfectant. For these 25 systems, it is expected that a comprehensive evaluation of the existing treatment will be made to determine the most cost-effective technique for compliance with the MCL. These systems will most likely use a combination of the alternative treatments, such as changing the point of chlorination or maximizing coagulation/filtration efficiencies. Use of GAC for TTHM control has been found to be effective for not only reducing precursor compounds which contribute to TTHM formation, but also to some degree for removing THMs once they are formed.

33. One commenter felt that increases in State program grants would be

necessary for States to implement these regulations.

These requirements are not expected to be an undue burden upon State programs. Implementation of these regulations will require State review and approval of proposed plans for treatment modifications for approximately 515 systems. Because of the relatively small number of systems within each State, the phasing-in of the two population segments, and the fact that, for the most part, minor modifications will be necessary, this is expected to be accomplished with minimal disruption to existing State programs. Further, many States already review system plans for any modifications to existing treatment. Compliance monitoring will also be required but this will only be a minor addition to the system already in use by State programs for checking compliance with the NIPDWR in effect.

34. One commenter stated that EPA underestimated the costs of implementing the regulation by underestimating the number of impacted systems. This commenter disagreed with EPA's use of a specific model for the water supply industry, assumptions regarding the number of systems that purchase water and use alternate disinfectants, and assumptions and predictions based upon NOMS for determining the level of THMs and if systems would be impacted. Instead, they said EPA should have conducted sampling at all systems and based its estimates upon those results. They further commented that EPA's estimate of 390 systems serving greater than 75,000 persons was not derived from EPA's Inventory of Systems but was based upon a policy testing model which left out numerous systems including all Federal Systems (e.g. District of Columbia) and the States of Hawaii and Alaska. They criticized EPA for not confirming the hypothetical results of the model with empirical data. Finally, they said EPA's assumptions regarding the number of systems using specific treatment systems such as GAC or no-cost modifications were arbitrary.

EPA has based its assumptions regarding the number of public water systems upon the actual inventory of water supply systems in the U.S. as ascertained in the Federal Reporting Data System (FRDS), and thus the number of systems is as accurate as possible. Certainly, surveys at every plant in the U.S. as suggested by the commenter would provide actual results rather than an estimate of TTHM levels, but NOMS is considered to be a valid representation of national exposure

levels. NOMS is the most recent and extensive data base and is adequate for estimating national cost impacts. In regard to disinfectant use, EPA based its estimates upon an EPA national survey in 1976 of drinking water plant operations. The determination of the number of systems that are expected to use specific types of treatment was discussed in the preamble and are reasonable estimates based upon the TTHM levels and available technologies. Finally, the commenter was unfamiliar with the policy testing model which the Agency uses to support economic and financial analysis. A description of this model is presented in Appendix A of the economic analysis document. It is used only to generate the aggregated costs and financial impacts, based upon inputs from treatment cost data, water supply inventory data, and water supply operating characteristics data.

35. One commenter stated that the EPA should provide a cost estimate of the stated goal of lowering the MCL at a later time to 50 ppb or 10 ppb.

Prior to lowering the MCL to any level, a full economic impact analysis would have to be conducted and available for public comment as part of an entire rulemaking proceeding. The 0.010 to 0.025 mg/l was merely stated as an indication of future technological performance potential.

36. One commenter was concerned that EPA had underestimated the financial implications of the TTHM regulations on water utilities, for example, by assuming that the rate increase required to finance the necessary revenue requirements would be easily obtained. This commenter noted that projections of future capital requirements in addition to the cost of the GAC process for various water systems had not been factored into the analysis. Another commenter stated that in order to install GAC, water utilities would need to raise capital through large rate increases. They noted that there were substantial regulatory barriers which could preclude water utilities from obtaining the necessary rate increases. Even if utilities were able to raise the capital funds, the quality of their credit and the attractiveness of their common stock would be severely reduced; this would reduce their ability to obtain external financing for normal water supply activities.

EPA believes that the estimated costs will not result in an undue burden upon water utilities and therefore, revenue requirements will be reasonably obtained in most cases. Further, EPA did not factor in capital requirements for such items as system maintenance or

expansion into the analysis since these are not directly related to the regulations. Since implementation of these regulations will improve drinking water quality, utilities should be in a favorable position to obtain rate increases. Further, it is not expected that bond rating of the utilities will be significantly affected or that regulatory barriers will seriously prevent systems to obtain financing for complying with these regulations.

37. Two commenters stated that EPA was required to prepare an Environmental Impact Statement (EIS) in conjunction with these regulations. They noted that EPA had not addressed the significant primary and secondary environmental problems associated with the use of GAC treatment facilities and that EPA's assessment had not evaluated the full environmental impact potential of the regulations so as to be functionally equivalent to an EIS.

EPA is not required to prepare a formal EIS for these regulations. Section 102(2)(C) of the National Environmental Policy Act (NEPA) requires the preparation of an EIS for "major Federal actions significantly affecting the quality of the human environment." However, the courts have exempted EPA rulemaking from this requirement where the Agency's action in carrying out its statutory obligations is designed to protect the environment and amounts to the "functional equivalent" of the requirements of NEPA. Although the courts have not specifically addressed the applicability of NEPA under the SDWA, the "functional equivalent" standard is equally appropriate and clearly satisfied here. This rulemaking has involved extensive efforts by EPA, including public participation, for evaluating the primary environmental impacts related to the control of TTHMs in drinking water. The potential negative impacts included air and water pollution impacts of GAC and its attendant regeneration furnaces, waste disposal issues related to such furnaces, adverse effects on the microbiological quality of drinking water, as well as risks associated with the use of GAC. Many other environmental impacts will be positive since human exposure to harmful chemicals will clearly be reduced. Moreover, the legislative history of the SDWA indicates that proposed provisions that would have required literal compliance with NEPA for actions taken under the SDWA were rejected by Congress. The secondary impacts were found to be too remote for consideration in EPA's analysis but are also believed to be negligible.

38. Two commenters stated that EPA was required to prepare an Inflationary Impact Statement (IIS) in conjunction with these regulations.

EPA does not believe that it was required to prepare an IIS for these regulations. Under Executive Orders Nos. 11821 and 12044, only major regulatory actions which may have a significant impact on inflation require the preparation of such statements. A major or significant regulation is one which has associated annual costs of greater than \$100 million, causes an increase in price of greater than five percent, or is so designated by the Agency's Administrator. For the TTHM regulation, annual costs are estimated at \$19 million, and average increases in the price of water are less than one percent. The Administrator has not designated this regulation as significant. Nevertheless, EPA has conducted a full economic and financial impact analysis of these regulations which is reported in the economic analysis document.

39. Comments were received concerning the air pollution and energy impacts associated with the use of regeneration furnaces for GAC. These commenters were concerned that the regulations would promote substantial new consumption of energy through use of GAC as well as in secondary energy consumption such as in the production of the energy that will be used in GAC regeneration, or the energy usage associated with the manufacture and transportation of GAC. One commenter stated that the Agency did not address the cost and environmental impact of such furnaces. One commenter was concerned about the availability and costs of energy for on-site regeneration of GAC as well as increased energy consumption.

EPA issued a supplemental notice of proposed rulemaking on July 6, 1979 (43 FR 29135 at 29147) which addressed precisely these concerns. EPA has concluded that the air pollution and energy impact of these regulations will be negligible. Air pollution associated with GAC furnaces will be minimized by the use of scrubbers whose cost have been included in EPA's estimated cost of compliance for those systems that will be required to use GAC for meeting the TTHM MCL. Since fewer systems are expected to have to install GAC than EPA originally proposed, these impacts have further been reduced. Secondary energy impacts, such as transportation costs, are too tangential to be estimated with any degree of accuracy, but are also considered to be insignificant. Energy consumption will increase consumption by an estimated  $508 \times 10^9$

BTU's per year or 0.0007 percent of present U.S. energy consumption. These figures do include a number of secondary energy impacts. Commenters are referred to the preamble and EPA's economic impact analysis accompanying these regulations for further details on these issues.

40. One commenter noted that EPA was required to analyze the costs of its actions in terms of the benefits hoped to be obtained and had failed to do so.

EPA has conducted a thorough analysis of the costs of this regulation and has examined in a qualitative source the perceived benefits from reducing levels of human exposure to THMs. It has been determined that the costs of this regulation are reasonable and therefore risks associated with exposure to THMs should be reduced accordingly. However, EPA is not required under the SDWA to perform a quantitative cost/benefit analysis nor to base regulatory decisions solely on the basis of such an analysis. Rather EPA is directed to establish an MCL which requires contaminants which may have any adverse effect on human health, including carcinogens, to be reduced to the extent feasible and that is the basis of EPA's establishment of the TTHM MCL at 0.10 mg/l TTHMs. Further reduction was not considered to be feasible at this time because of the potential trade-off of compromising the bacteriological quality of the drinking water due to less effective disinfection practices. Commenters are also referred to the discussion that follows below.

41. Information on the relative benefits related to the costs of the TTHM regulation was provided in an NAS Report, "Non-Fluorinated Halomethanes in the Environment" (1978). Dr. Andelman, using GAC and aeration as the tool to demonstrate a methodology of evaluating cost and benefits, concluded that in the absence of any other perspective, it was not cost-beneficial to use GAC or aeration simply to reduce chloroform concentrations in drinking water.

The report stated:

From the viewpoint of economics, the central policy issue in controlling human exposure to any toxic substance is whether the benefits of reducing deaths, suffering, illness, and other losses outweigh the costs of controls. This involves identification of population exposure levels and a determination of when the costs of additional controls exceed the benefits of a further reduction in exposures.

The report applied four concepts and principles including: (1) The discounted value of an individual's production, (2) extrapolations from risk premiums, (3) costs of illness and human suffering, and

(4) the Pareto Improvement principle, and applied the empirical estimates of values of reducing the probability of death to develop his benefit-cost evaluation. The report concluded that:

Depending on the methodology that is used to compute costs, from these examples, the most reasonableness estimates of the per capita value associated with reducing the probability of death by 100 percent range from \$100,000 to \$1,000,000.

EPA has reviewed this NAS report and believes that the cost side of a benefit-cost equation that is used in the control of toxic substances should have been calculated for each specific control technique because the costs per person benefited may vary greatly among the available control options. The NAS report selected only aeration and GAC adsorption process for the control of THM concentration in drinking water and failed to consider other less expensive treatment methods which will, in fact, be used by most systems to comply with the TTHM MCL.

The report assumed that the most significant effect of human exposure to chloroform in drinking water was cancer and that all of these cancers result in death; effects other than cancer mortality were presumed to be negligible. Therefore, the report said the benefits of reducing human exposure to chloroform in drinking water could be estimated by multiplying data on lifetime risk of cancer by the economic value of reducing the risk of death from cancer in a population. The benefits also could be calculated by multiplying the daily per capita uptakes of chloroform by the risk of a cancer death over an average lifetime from a given daily dose of the carcinogen by the economic value of reducing the risk of a cancer death.

Based upon the above principles and other assumptions, the report found that:

Very high concentrations of chloroform in drinking water are associated with enough risk of cancer to justify the costs, on economic grounds alone, of treatment processes for removal of this compound. The potential magnitude of the problem is even greater if allowance is made for the upper limit of risk. Furthermore, justification for treatment rises with the value imputed to avoiding a death. However, the current cost of treatment to remove chloroform from drinking water is sufficiently high that the economic justification for removing chloroform from drinking water in the United States, assuming the most probable risk, exists only in those cases where maximum initial concentrations of chloroform are found in drinking water, there is maximum fluid intake, and the risk of death is valued at \$1,000,000 or more. Using a more typical and more statistically justifiable value of reducing the risk of death, i.e., \$300,000, the high cost of removing chloroform alone cannot be

justified on economic grounds for the most probable risk conditions, even when there are maximum concentrations and intake.

EPA believes the analysis in this NAS report has several serious shortcomings which obviate its conclusions. As is stated in the report itself, the analysis was designed primarily "to demonstrate a methodology," rather than to draw strong conclusions about the particular example used. In EPA's view, the following assumptions made in the analysis bias it against regulation of THM: (1) The risk extrapolation used for chloroform is lower by a factor of 8.5 from that derived by the NAS in *Drinking Water and Health* (the existence of so large a discrepancy in an estimate by the same organization using the same model illustrates the difficulties in making a fine-grained comparison of risks and costs), (2) no account is taken of the benefits of GAC other than removal of THM, such as removal of other disinfection by-products, synthetic organic chemicals present in the raw water, and substances with objectionable taste and odor, and (3) it does not take into account much cheaper technologies for THM control. In spite of these biasing assumptions, the analysis still concludes that, for an assumed value per cancer case avoided of \$500,000, a community would be justified in installing GAC for TTHM control if its TTHM level exceeded 164 ug/l, a conclusion which is not at all inconsistent with an MCL of 100 ug/l.

EPA agrees that the costs and benefits of alternative regulations should be examined in deciding whether and how stringently to regulate, where the statutory framework does not prohibit such examination. While no such prohibitions are contained in the SDWA, EPA believes that the uncertainties in quantifying the health benefits of regulatory actions, particularly given the great scientific uncertainties about the effects of low levels of carcinogens, make formal cost-benefit analysis of limited usefulness in regulatory decision making.

The quantification of risk is sorely limited by the lack of demonstrable accuracy and precision of any statistical model, the inability to identify more than a portion of the substances that would be generated by chlorination in water, the inability to predict the toxic potency of those chemicals individually let alone as a variable complex mixture, the inability to quantify the contributions of these chemicals to and their interactions with the mass of toxic chemicals that are part of human body burdens, and the inability to identify

particularly susceptible high risk segments of the population.

The costs that were used in the NAS analysis dwelled on GAC and aeration which are among the most expensive options and which only a small number of water systems would need to use. Prevention or reduction of THM formation potential prior to introduction of chlorine is much less costly than removal after formation. The NAS estimate of benefits associated with the THM regulation considered removal only of chloroform and none of the other by-products, and also did not consider any other water quality improvements. The study's cost of not controlling THMs in public water systems did not include the considerable offset of increased cost to consumers and society by increased reliance on bottled water or home devices that ostensibly reduce organic chemicals at the tap. Morbidity costs, lost wages and health treatment costs were also not considered. Thus, risks and benefits can easily be underestimated, and costs overestimated. Considering costs, risks and benefits is of course an essential part of any regulatory process, but the judgment of an acceptable societal cost for a human life is a matter of policy that requires many more complex and subtle factors that are not within the current state-of-the-art for these types of quantitative analyses. Additional discussion of cost-benefit analyses is provided below in the response to the comments submitted by the Council on Wage and Price Stability.

42. The Council on Wage and Price Stability (CWPS) said that the EPA studies contain:

- (a) No analysis of the benefits of alternative performance standards or of alternative population-size cut-offs, and
- (b) No analysis of either the costs or the benefits of alternative design standards.

Consequently, CWPS believed that the EPA analyses shed no light on the reasonableness (i.e., the cost-effectiveness) of these decisions. They said that EPA provided no information about the consistency of these regulatory decisions with each other or with other EPA regulations. CWPS believed that because the resources available for health-related programs are limited, it is important that those resources be allocated in a way that maximizes the benefits (in terms of lives saved or cases of illness or injury avoided). This in turn would require that the incremental cost per cancer case avoided be at least approximately equated for different regulations or different adopted standards. CWPS felt that it was incumbent upon EPA to

support its proposed regulations with careful risk-assessment and cost-benefit analyses, employing the best estimates available regarding uncertain variables, parameters, and relationships. CWPS made some preliminary calculations and suggested that more lives could be saved with no increase in costs by tightening up on the performance standard for THM (i.e., lowering the allowable concentration below 100 ug/l and concomitantly relaxing the population cut-off (higher than 75,000)). CWPS said that:

(a) The incremental cost of lowering the population cut-off from 100,000 to 75,000 (given a 100 ug/l standard) is \$12.2 million per additional cancer case avoided.

(b) The incremental cost of strengthening the performance standard from 100 ug/l to 50 ug/l (given a population cut-off of 75,000) is \$6.3 million per additional cancer case avoided.

(c) Thus, the cost of avoiding cancer cases by applying the MCL to communities with populations of 75,000 and above, which EPA had done, is double the cost of avoiding cancer cases by strengthening the standards to 50 ug/l, which EPA did not propose.

(d) CWPS also said, "These calculations do not necessarily mean that the performance standard should be tightened to 50 ug/l, but they do suggest that the (two) proposed regulations are internally inconsistent."

The CWPS comments raise two separate types of issues with respect to the THM regulation. The first concerns the use of cost-benefit analysis to determine whether a regulation is justified and what its overall level of stringency should be. The second concerns whether, given that a regulation limiting THM levels is to be implemented, the proposal would be the most cost-effective way of using a given level of social resources to reduce the population's exposure to THMs.

On the first issue, CWPS did not draw any conclusions as to whether the regulation was justified, but recommended that cost-benefit analyses be an integral part of the Agency's decision process.

EPA has reviewed the subject of using cost-benefit analysis in regulatory decision-making under the SDWA and reached the following conclusions. First, benefit-cost analysis is most useful to decision-makers when benefits can be specified with the same degree of certainty as the costs. However, when dealing with long-term health risks, such as cancer-causing contaminants like THMs, while it is possible to establish the existence of a risk, it is beyond the

state-of-the-art of current scientific knowledge to establish the exact degree of risk. Crude indications of risk can be made, and these can be used to develop a range of health benefits associated with a regulation, however, the range is so broad that its use in benefit cost analysis overwhelms these elegant and sensitive analytical procedures. In addition, there is little agreement on the dollar value which should be ascribed to the avoidance of a case of cancer. Past estimates have ranged from \$10,000 to \$158 million. Therefore, due to these two fatal deficiencies, it is not possible to place excessive significance on cost-benefit analysis for the long-term health risks related to this regulation.

Despite these inherent difficulties, EPA conducted an analysis of regulation alternatives. Constraints to decisionmaking involving technical and administrative issues tended to limit the range of alternatives. Within this framework, however, it was possible to establish that for the regulation the marginal cost of a case of cancer avoided is approximately \$200,000 (counting only the benefits of THM reduction). This is similar to that suggested in the NAS report cited by Dr. Andelman. Further discussion is included in the Statement of Basis and Purpose.

On the second issue, EPA agrees that any regulation should make the most efficient possible use of the social resources devoted to compliance, to the extent that it is possible to predict. CWPS presented an analysis which purported to show that, for the same total cost, a greater reduction in THM exposure might be obtained by reducing the MCL and increasing the population cut-off figure. However, the assumption had been made that systems exceeding the MCL would reduce their THM levels precisely to the MCL; in fact, many of the control technologies would actually reduce THM levels to much lower levels in practice. When account is taken of this fact, the analysis shows that EPA's proposed regulation is more cost-effective than the CWPS' suggested alternative. After staff-level discussion, CWPS recognized this and other technical deficiencies in its analysis in a letter to EPA dated January 31, 1979.

43. Sixty-nine comments were received on the proposed concept of averaging concentrations of TTHMs for compliance. A majority of the commenters approved of both the annual averaging of TTHM values from quarterly samples, and the averaging of TTHM values of representative samples within the distribution system. However, fourteen commenters thought that

averaging the quarterly results would mask fluctuations in TTHM levels as affected by seasonal and other site-specific factors. One said that quarterly averaging would be justified if EPA were concerned about the chronic but not acute effects of THMs. One said that flexibility should be retained in the regulation for later reconsideration of this averaging concept. Two commenters said that compliance should be determined by averaging all of the results of samples taken in the preceding 12 months. One suggested that a geometric mean should be used in compiling and averaging the sampling results. One felt that there was not enough information to determine whether the concept of averaging was reasonable.

On the question of averaging results of samples in the distribution system, several commenters felt that averaging values could mask high TTHM concentrations and fail to protect those individuals receiving maximum doses. Because flow patterns in the distribution system are likely to be relatively constant, these commenters believed that some residents could be unduly exposed to consistently high levels of TTHMs over a long period of time. One commenter opposed averaging the high values of TTHM analyses from samples taken at the extremes of a distribution system, with the lower results from other areas of the distribution system because it would result in uneven population exposure. Three others suggested that all samples should be taken at the extremes of the distribution system instead of averaging all sample results. One suggested that all samples should be incubated to obtain terminal TTHM and hence uniform results. One commenter said that all samples should be taken from the same point every time to avoid misrepresentation. One commenter thought that selection of sampling locations should be based upon results of a sanitary survey for each system.

EPA's proposal to determine compliance with the TTHM MCL based upon an annual average of the sampling results per quarter has been retained in the final regulations. EPA recognizes that TTHM levels may fluctuate depending upon seasonal and other site-specific factors. However, the MCL for TTHMs has been established primarily to protect the public from the adverse effects attributable to chronic exposure to these contaminants, rather than from any acute effects. EPA nevertheless retains the flexibility to amend these regulations should new information indicate that annual averaging of

quarterly results is not adequately protective. On the other hand, EPA believes that it would not be reasonable to determine compliance by an annual average of all samples taken since this could clearly allow systems to mask fluctuations in TTHM levels over the year. In regards to use of a geometric mean as the basis of the MCL, the arithmetic mean is considered to be more appropriate because it is a more accurate representation of typical human exposure.

With regard to those commenters who expressed concern about EPA's proposed sampling program, it is noted that it would have required systems to average a minimum of five samples per quarter, no more than 20% of the samples to be taken at the entry point to the distribution system, no less than 20% at the extremes of the distribution system and the remaining 60% at representative points in the system relative to population density. In response, these final regulations have reduced to four the minimum number of samples to be taken per quarter, but no longer allow any samples to be taken at the entry point to the distribution system, where TTHM levels would have likely been lowest, and where few consumers would have actually been exposed to such levels. EPA believes that this sampling program will better reflect the average TTHM levels in the drinking water served to most consumers.

However, EPA rejected the suggestions to require all samples to be taken either at the extremes of the distribution system, or at the same point in the distribution system each time. Such sampling schemes would not fairly represent the water system as a whole. However, EPA is concerned that very high levels of TTHMs at the extreme ends of a distribution system be reduced. EPA believes that by requiring extreme sampling results to form a larger percentage of the quarterly average (25% as opposed to the proposed 20%), any great differences in TTHM concentrations in such locations may be detected and corrected.

In response to the remaining comments on EPA's proposed sampling program, EPA has not required all samples to be incubated to obtain terminal results because this would probably overestimate actual concentrations at the taps of most consumers. EPA agrees with the comment that sampling locations must be selected by the system on a case-by-case basis, preferably after a sanitary survey, depending upon the particular configuration of its distribution system.

Systems are encouraged to work with the States and EPA in the selection of truly representative sampling points. EPA has required that the number of samples taken be commensurate with the number of treatment plants used by each system to allow sampling to detect differences in TTHM levels within each system attributable to different source waters and different treatment methods. Once problems are detected, systems should reduce extreme differences of TTHM levels within their distribution system.

44. Twenty-three commenters supported EPA's proposal to require use of the Standard Plate Count (SPC) as a more sensitive indicator (than the coliform test) of microbiological quality during treatment modifications. Thirty-seven commenters felt that the SPC was of questionable value or unreliable, and that the SPC requirement would impose an unnecessary administrative burden on water utilities. Five commenters suggested that the SPC should only be required for those systems whose water sources receive municipal point source discharges, and should not be required for all treatment modifications. Four commenters also felt that the SPC should only be used to confirm a questionable microbiological count and that the decision to use the SPC should be left to the discretion of the State regulatory agency.

In response to these comments, EPA has decided to delete from these regulations the SPC as a mandatory requirement for all systems that make treatment modifications to comply with the TTHM MCL. However, EPA still believes that compliance with the TTHM MCL should not be achieved at the expense of the microbiological integrity of the water and that the SPC can be a reliable and useful tool as an overall indicator of water quality. Therefore, in order to insure that disinfection is not compromised, while affording maximum flexibility to the States to address case-by-case situations, these final regulations have included a requirement whereby systems must seek and obtain State approval of any planned significant modifications to their treatment process made to comply with the TTHM MCL that could affect biological quality. The States (or EPA in non-primacy States) must therefore exercise careful supervision over system treatment changes by prescribing specific measures (which would include the SPC in appropriate cases) to insure the continued microbiological quality of the drinking water. The usefulness of the SPC and other biological tests are

discussed in greater detail in the preamble to these regulations and will be discussed in EPA's guidance to the States concerning approval of system treatment modification plans.

45. Ten comments were received on EPA's proposed restriction on the use of chlorine dioxide as an alternative disinfectant to free chlorine. Nine opposed the restriction of using chlorine dioxide at a maximum dose of 1 mg/l but provided no supporting data. One felt that EPA should encourage the testing and use of alternative disinfectants while others felt that the limit of 1 mg/l for chlorine dioxide was arbitrarily set and that up to 2 to 3 mg/l chlorine dioxide should be allowed. One commenter reported that chlorine dioxide was effective in reducing the TTHM concentration in his system from 284 mg/l to 16 mg/l.

In response to these comments, EPA has deleted from the final regulations its proposed restriction on the amount of added chlorine dioxide. EPA is nevertheless concerned about the uncertain state of knowledge concerning the potential for adverse effects associated with chlorite, chlorate and chlorite ion, which are produced from oxidation/reduction reactions of chlorine dioxide in water. EPA will be considering proposing limitations on the residual oxidants ( $\text{ClO}_2$ ,  $\text{ClO}_2^-$ , and  $\text{ClO}_3^-$ ) in the finished drinking water rather than on the amount of chlorine dioxide added. In the meantime, additional research on the health effects of alternative disinfectants will continue. MCLs may be developed for inclusion in the Revised Regulations after further studies have been fully evaluated.

By requiring all systems significantly modifying their treatment process to comply with the TTHM MCL to obtain State approval of their modification plan, EPA expects that where restrictions on chlorine dioxide are necessary, the States will impose such restrictions as appropriate in accordance with EPA guidance including monitoring for residual oxidants and maintaining their concentration at a low level. Where chlorine dioxide is completely reduced to chloride, no restrictions would be necessary since by-products are believed to be of no toxicological significance. Case-by-case judgments can also be made to impose restrictions when the presence of reducing agents in the raw water of a particular system would result in excess formation of chlorite and chlorate. Additional discussion on the use of chlorine dioxide as an alternative disinfectant is

contained in the preamble to these regulations and will be contained in additional EPA guidance to the States for approval of system treatment modification plans.

46. Fifty-five commenters opposed EPA's proposed limitation on the use of chloramines as a primary disinfectant. They argued that chloramines would solve some of the problems of using chlorine for drinking water treatment because chloramines do not react with precursors to produce TTHMs, and chloramines have been in use in many water systems for many years without any problems. Eleven commenters agreed that chloramines should be restricted from use as a primary disinfectant. One of these commenters reported that preliminary data had indicated that chloramines may not be effective in neutralizing viruses and amoebic or Giardia cysts. One commenter suggested that chloramines may be used after the primary disinfection step for the purpose of maintaining an active disinfectant residual. The NDWAC felt that the proposed limitation was unduly restrictive.

EPA found that most of the commenters opposed to the imposition of restrictions on the use of chloramines failed to recognize that EPA's proposed restriction was limited to prohibiting its use as a primary disinfectant. EPA does not disagree with those commenters who endorsed the use of chloramines as an effective secondary disinfectant (to maintain an active combined chlorine residual). Nevertheless, in response to these comments, EPA has decided to delete the chloramine restriction from the final regulations, allowing appropriate restrictions to be imposed in necessary situations by the States in approving system treatment modification plans. Use of chloramines instead of free chlorine has been shown to be a simple and readily available means for reducing the formation of TTHMs in many examples. However, they are also known to be weak disinfectants for certain bacteria, viruses and protozoa, compared to free chlorine as HOCl, ozone and chlorine dioxide. Therefore, where such contamination is suspected, appropriate restrictions should be imposed. Additional information on the use of chloramines as an alternative disinfectant is contained in the preamble to these regulations and in additional EPA guidance to the States on approval of system treatment modification plans.

47. Eleven comments were received opposing the concept of setting an MCL

to control TTHMs in drinking water. Two commenters said that EPA lacked legal authority to regulate the TTHMs under the Amendments to the National Interim Primary Drinking Water Regulations (NIPDWR). One commenter noted that the feasibility of control measures under the NIPDWR must be adjudged to have been available as of December 1974, when the SDWA was enacted. Three commenters said the NAS report, "Drinking Water and Health" fell far short of providing the needed scientific definition and did not recommend EPA to set MCLs for TTHMs. One commenter said that the EPA should not yield to the pressure from some public interest groups to set a MCL for TTHMs before the health risks have been established. Four commenters believed that the main reason EPA proposed an MCL for TTHMs was because EPA was anti-chlorination and was trying to abolish chlorination practice in water treatment. One of the four suggested that instead of an MCL, EPA should tighten chlorine specifications so that no contamination of the water will result during chlorination practice. Three others recommended that the regulations provide guidance on the proper use of chlorine as a disinfectant, either free or combined, for case-by-case applications.

EPA's response to those comments addressing the Agency's authority to establish these regulations as Interim Primary Drinking Water Regulations is contained in the preamble, and commenters are referred thereto. EPA agrees that the feasibility of control measures under the NIPDWR must be based on technology generally available as of 1974 and has found that these regulations satisfy the statutory test.

With respect to those commenters that cited the NAS Report "Drinking Water and Health" to support their position that regulation of TTHMs is premature, EPA disagrees with their interpretation that the NAS only recommended further research. In fact, the NAS concluded that: "strict criteria be applied when limits for chloroform in drinking water are established to protect the public health." Moreover, Dr. Riley Housewright of the NAS Safe Drinking Water Committee, stated that: "chloroform and other THMs present a health hazard and that steps should be taken to prevent their formation or to remove them from drinking water." As noted in the preamble and EPA's responses to other comments in this Appendix, EPA believes that sufficient information is known about the potential for adverse health effects from the presence of THMs in drinking water

to warrant regulation at this time. Although further research will continue to be forthcoming, EPA need not wait for definitive proof of harm before it takes regulatory action under the SDWA.

With respect to those commenters who charged that EPA's establishment of a TTHM MCL evidenced EPA's intent to abolish chlorination as a drinking water treatment practice, EPA disavows such an intent. However, EPA does believe that improper or careless use of chlorine, as well as any other disinfectant, can result in the unnecessary formation of potentially harmful by-product chemicals in the finished drinking water. EPA acknowledges that chlorine is currently the most widely used, highly effective drinking water disinfectant and expects that use to continue. However, control of TTHMs should lead to a more judicious use of chlorine and will serve to minimize human health risks from exposure to other disinfection by-products. EPA also agrees that better quality control in the manufacture of chlorine for drinking water treatment is necessary to avoid harmful contaminants contained therein and will address such concerns in conjunction with its overall review of water treatment additives. EPA's guidance to the States for approval of system treatment modification plans will contain additional information on proper chlorine use.

48. A total of 306 comments were received expressing a concern for the basis of health effects data that support the proposed TTHM regulations. The majority of the commenters felt that the proposed MCL was not based upon incontrovertible health effects information and urged that additional health effects research and epidemiological studies should be conducted. Only a few commenters said the supporting health effects data for the proposed THM regulations were adequate and that the regulatory action was justified now.

Specifically, 292 comments said that the available health effects data, both epidemiological studies and laboratory animal tests, were not conclusive and were disputed by many scientists. These commenters, therefore, believed that the setting of an MCL for TTHMs was not warranted at this time. They suggested that more research should be conducted specifically on the toxicological assessment procedures and the health effects of long term exposure to low dosage of THMs.

EPA has reviewed these comments in light of all available health effects information and has concluded that long

term low level exposure to TTHMs may be harmful to human health. EPA's conclusions are supported by comments and statements of policy by representatives of the National Cancer Institute, National Academy of Sciences, National Drinking Water Advisory Council, National Institute of Environmental Health Sciences, Food and Drug Administration, Occupational Safety and Health Administration, and the Consumer Product Safety Commission. These commenters emphatically stated that EPA should not wait for additional evidence to proceed with regulatory action to control chloroform and trihalomethanes in drinking water which was warranted now. These comments are summarized in Appendix B.

The following discussion summarizes the specific concerns expressed by commenters regarding the health basis of the regulations and presents the Agency's responses.

49. Comments were received that argued that chloroform poses no potential cancer risk and there are no available data that support the premise of a causal relationship between the concentrations of THMs normally found in drinking water and cancer in humans. They noted that the epidemiological studies that have been conducted concerning drinking water and a possible connection with cancer risk in humans were inconclusive.

EPA reviewed the available 18 epidemiological studies concerning the relationship between cancer morbidity/mortality and constituent concentration in drinking water supplies. In summary, many but not all of the preliminary studies have found positive correlations between some drinking water quality factors and some cancer mortality and morbidity statistics such that the general hypothesis is supported. Further evaluations are necessary due to the confounding factors inherent in epidemiological studies of this nature. Therefore, EPA has relied primarily on the results of animals studies in concluding that TTHMs in drinking water pose a risk to humans. Thus, EPA does not disagree with the comment that data do not exist to demonstrate a causal relationship between the concentrations of synthetic organic chemicals including THMs in drinking water and cancer in humans. However, the positive correlation of cancer morbidity/mortality and contaminants in drinking water are suggestive and are not inconsistent with the carcinogenic potential of chloroform as demonstrated by well conducted animal experiments at high doses.

50. Some commenters opposed EPA's reliance on animal studies for its finding that TTHMs in drinking water pose a health risk on the grounds that extrapolation of results in animal cancer studies to humans is fraught with problems and uncertainties.

EPA recognizes the problems of extrapolating animal data to man. The state-of-the-art in toxicology as illustrated by the NAS in the report "Drinking Water and Health" is that the effects in animals, properly qualified, are applicable to man. Chloroform has been shown to be carcinogenic in experimental animals; its metabolic pattern in animals is similar to that in humans; EPA therefore believes that the carcinogenic effect of chloroform as observed in animals do indicate risks from human exposure to TTHMs in drinking water.

51. Some commenters argued that the study (by National Cancer Institute (NCI)) cited by EPA to support the carcinogenicity of chloroform was "a preliminary screening test and not a definitive study." They said that the study was not intended to be used to extrapolate health effects of chloroform to drinking water levels and that the NCI study was inadequately controlled and did not follow proper scientific protocols. Since a new EPA/NCI study is underway it was recommended that the implementation of any regulations be delayed until this study was completed. They claimed that the NCI study was not intended to be used to extrapolate the adverse health effects of the tested animals to the potential human health risk posed by the low levels of chemicals that are found in drinking water, since many researchers believe that the high morbidity rates in the animal experiments suggested acute toxicity rather than chronic toxicity.

Based on the NAS review and the NCI report, EPA has concluded that the NCI chloroform-carcinogen bioassay with all its short-comings is a valid test. It has been accepted by the other federal agencies for regulatory purposes. The morbidity noted took months or years to develop and would not be an acute effect by definition which would occur in 3-7 days. In addition, the studies performed as early as 1945 by Eschenbrenner and Miller pointed out the carcinogenic potential of chloroform and the metabolic similarity of chloroform in humans and animals. The NCI study on the carcinogenic potential of chloroform has been used by the NAS as well as by the EPA's Cancer Assessment Group (CAG) for risk estimation. Additional refining studies are continuing, but sufficient evidence

exists to indicate potential human risk and, therefore, to reduce human exposure.

52. Several commenters stated that Dr. Roe's studies with chloroform on dogs, rats and four strains of mice at low dose levels did not produce tumors in animals. Dr. Roe recommended a level of 300 ppb THM in drinking water based upon his results. It was claimed that Roe's studies showed a no observed effect at 595,000 (drinking water equivalent) ppb of chloroform in drinking water. Therefore, he argued that 300 ppb would provide margin of safety of 2,000. It was argued that EPA had used 500 as a margin of safety in other regulations. Based upon his chosen statistical extrapolation model, he found that a THM MCL of no lower than 0.30 mg/l (300 ppb) would provide a more than adequate margin of safety. However, it was also stated that this level is still too low to be justified on a cost-benefit basis if GAC were required.

EPA has concluded that Dr. Roe's studies with chloroform on dogs, rats and four strains of mice at low dose levels further strengthens the hypothesis of chloroform carcinogenicity. In one study, the mice fed 17 mg/kg/day chloroform showed no incidence of renal carcinoma, but an excess of tumors of the renal cortex were observed in the male ICI—Swiss mice, at a dose level of 60 mg/kg/day. The negative results observed in the dog experiment may be attributed to the fact that either the animals were not exposed for a suitable length of time (i.e., duration of life span) or that an insufficient number of animals were tested. The negative results of the rat study may be attributed to the lack of strain sensitivity.

Using a no-observed-effect-level for chloroform of 17 mg/kg/day, Dr. Roe recommended 300 ppb chloroform in drinking water as an acceptable level. According to his calculation this would provide a margin of safety of 2000 for a standard person drinking two liters of water per day. The NAS Safe Drinking Water Committee and many other scientists now believe that the methods at present do not exist to establish a threshold for long-term effects of carcinogens; thus, the safety factor of 2000 referred to in Roe's recommendation of 300 ppb THM does not apply to carcinogens since no exposure can be considered to be absolutely "safe". EPA is directed by the SDWA to reduce human exposure to harmful contaminants in drinking water to the extent feasible. EPA's THM MCL of 0.10 mg/l can be feasibly achieved. The comment regarding the costs vs. the

benefits of the use of GAC is discussed elsewhere in this Appendix.

54. Some commenters said that EPA's proposed MCL of 100 ppb was needlessly low and will require costly additions or changes to water treatment facilities without achieving any corresponding benefit in water quality.

EPA has found that exposure to TTHMs should be minimized. The level of the MCL at 0.10 mg/l TTHMs was determined to be a feasible level for achievement under the interim regulations. Systems are encouraged to reduce the level of TTHMs below the MCL if technically feasible. EPA expects that compliance with the MCL will benefit drinking water consumers in reduced exposure to THMs as well as reduced exposure to other disinfection by-products which may have adverse health effects. For some systems the aesthetic quality of the water will also improve because taste and odor producing compounds will be reduced along with reductions in TTHM levels. As discussed in the preamble and in EPA's Economic Analysis accompanying this final regulation, costs are not considered to be significant in that most required changes will be relatively minor.

54. It was stated by several commenters that there are a lack of health effects data on THMs other than chloroform and therefore, if an MCL is set, it should only apply to chloroform.

EPA has found that the THMs other than chloroform (bromoform, dibromochloromethane, dichlorobromomethane) are structurally similar to chloroform, and possibly undergo similar metabolic pathways and exert similar bioeffects. Like chloroform, bromoform exposure leads to fatty degeneration and centrilobular necrosis of the liver. Bromoform, dibromochloromethane and dichlorobromomethane have been reported to be mutagenic in Ame's bacterial test system. This test provides information indicative of the potential of genetic damage in biological systems. Thus, because of the chemical similarities in chemical structure and biological activity, EPA's concern regarding potential toxic effects of these chemicals and setting the MCL for TTHMs is reasonable.

55. Several commenters stated that there was no hard evidence that low level exposure to TTHMs produces cancer.

Based on current scientific knowledge, EPA must extrapolate from the results of animal tests using higher dosages to determine potential human health risks from exposure to low levels of particular contaminants. With chemicals such as

chloroform that have been shown to be carcinogenic in animals, no level of exposure can be presumed safe. Therefore, EPA has concluded that TTHMs in drinking water must be reduced to the extent feasible as required by the SDWA.

Nevertheless, recent studies using low levels of 2-amino N-acetyl-fluorene (2-AAF) in mice suggest that low level exposure of animals to this compound produces liver tumors when applied. These adequately controlled studies (23,000 animals) showed a no threshold effect (liver cancer) was observed for AAF at the 1% level. In order to be able to measure below the 1% effect somewhere in the order of 100,000 animals would be required.

56. Some commenters claimed that other animal experiments have suggested the existence of definite threshold limits for toxic and carcinogenic effects.

EPA's position is that available data suggest a non-threshold response for carcinogenesis. As an example, the recent Acetyl Amino Fluorene experiments were consistent with a no threshold mechanism for liver tumor induction. This position is supported by the comments of Drs. Upton, Kennedy, Bingham and King from the National Cancer Institute (NCI), Food and Drug Administration (FDA), Occupational Safety and Health Administration (OSHA) and Consumer Products Safety Commission (CPSC), respectively, as noted in the preamble and presented in Appendix B. EPA's position is discussed in both the preamble and the Statement of Basis and Purpose. Also, the National Academy of Sciences addressed this issue in "Drinking Water and Health" (NAS, 1977) as follows:

Carcinogenic effects may well not have threshold dose-effect relationships. If an effect can be caused by a single hit, a single molecule, or a single unit of exposure, then the effect in question cannot have a threshold in the dose-response relationship, no matter how unlikely it is that the single hit or event will produce the effect. Mutations in prokaryotic and eukaryotic cells can be caused by a single cluster of ion pairs produced by a beam of ionizing radiation. We would expect that mutations can be caused by a single molecule or perhaps group of molecules in proximity of DNA. The necessary conclusion from this result is that the dose-response relationship for radiation and chemical mutagenesis cannot have a threshold and must be linear, at least at low doses.

We therefore conclude that, if there is evidence that a particular carcinogen acts by directly causing a mutation in the DNA, it is likely that the dose response curve for carcinogenicity will not show a threshold and will be linear with dose at low doses (pp. 37-38).

*Methods Do Not Now Exist to Establish a Threshold for Long-Term Effects of Toxic Agents*

With respect to carcinogenesis, it seems plausible at first thought, and it has often been argued, that a threshold must exist below which even the most toxic substance would be harmless. Unfortunately, a threshold cannot be established experimentally that is applicable to a total population. A time-honored practice of classical toxicology is the establishment of maximum tolerated (no-effect) doses in humans based on finding a no-observed-adverse-effect dose in chronic experiments in animals, and to divide this dose by a "safety factor" of, say, 100, to designate a "safe" dose in humans. There is no scientific basis for such estimations of safe doses in connection with carcinogenesis. For example, even if no tumors are obtained in an assay of 100 animals, this means only that at a 95% confidence level, the true incidence of cancer in this group of animals is less than 3%. Even if we were to carry out the formidable task of using 1,000 animals for the assay and no tumors appeared we could only be 95% sure that the true incidence were less than 0.3%. Obviously, 0.3% is a very high risk for a large human population.

In fact, there are no valid reasons to assume that false-negative results of carcinogenicity tests are much less frequent than false-positive ones. To dismiss all compounds that did not induce tumors in one or two mouse and rat experiments as non-carcinogenic is wrong. Labeling as "carcinogens" all substances that gave rise to increased incidence of tumors is justified only if there is conclusive evidence of a causal relationship. The "relative risk" of compounds that are not found to induce tumors in animal experiments must also be considered. But this requires evaluation of data other than those collected in chronic toxicity studies on rodents.

Experimental procedures of bioassay in which even relatively large numbers of animals are used are likely to detect only strong carcinogens. Even when negative results are obtained in such bioassays, it is not certain that the agent tested is unequivocally safe for man. Therefore, we must accept and use possibly fallible measures of estimating hazard to man.

57. As noted by a number of commenters, the assumption of parallel response between test animals and humans does not hold for many species.

EPA believes that animal experiments that demonstrate a carcinogenic response are indicative of a potential carcinogenic response in the human population. This is supported by Drs. Upton, Kennedy, Bingham, and King from the NCI, FDA, OSHA, CPSC, and NIEHS, respectively, whose testimony is presented in the preamble and Appendix B.

58. Some commenters stated that EPA's extrapolation procedure erroneously utilized two "very consecutive" techniques to determine

the MCL for THMs. They said that either technique could probably be justified, but not both.

The level of the MCL is based upon feasibility of available treatment technology and maintenance of biological safety and not on an extrapolation technique from experimental data. The need to limit human exposure is demonstrated by the potential adverse health effects from long term exposure to chloroform from animal studies.

59. Comments were received that alleged that EPA estimates of environmental exposures to chloroform appear to be erroneous and suggested that EPA make every effort to obtain correct values for contributions from air, food and water. Also, they suggested the possibility that *in vivo* formation of chloroform and other THMs in the human body might occur. The commenters felt that the available data suggest that more cost-effective avenues, such as control of chloroform in the work place, may be available for reducing THMs in the environment than by implementing the proposed TTHM MCL.

EPA's estimates of environmental exposure to chloroform were based upon the most recent available data and are considered to be adequate representations of exposure levels. The speculation of *in vivo* formation of chloroform and other THMs in the human body contradicts what is known concerning the fate of chloroform in a mammalian system although this may be occurring from ingestion of chlorine in water. In mammalian systems, chloroform is metabolized to carbon dioxide and other metabolites. The rate of metabolism will be dependent upon the species. Therefore, there is little chance of chloroform being biochemically produced endogenously in the human body.

With regard to the suggestion that there may be more cost-effective means for controlling chloroform in other aspects of the environment, EPA has found that drinking water is a significant contributor to overall human exposure to THMs. Moreover, control of THMs in drinking water is not a significant burden upon water utilities, and will result in reduced human exposure to other potentially harmful disinfection by-products as well. Thus, EPA believes that these regulations are necessary for reducing human exposure to chloroform from a significant source. OSHA and FDA have likewise taken action to reduce human exposure to chloroform under their respective statutory authorities.

60. Some commenters noted that the concentrations of THMs found in public water systems present no mutagenic, teratogenic, acute, subchronic, or chronic toxicological health risk to the public.

Based on the evidence in EPA's rulemaking record, EPA has concluded that THMs pose a carcinogenic risk at the levels found in drinking water. No safe level can be deemed to exist for human exposure to carcinogens and therefore, levels of these contaminants should be reduced to the extent feasible.

61. Some commenters alleged that EPA misconstrued the four general "principles" for risk assessment stated by the NAS in its report "Drinking Water and Health." They argued that EPA did not properly use these principles and ignored the available data. Specifically, with regard to the first NAS principle, EPA was faulted for not taking into account a number of variables in extrapolation of the animal data to humans, including differences between species response to carcinogens, weight, intake of food and water, and routes of exposure. With regard to the second NAS principle, they argued that EPA ignored animal experiment data that showed a threshold level for no-effect responses with respect to a number of suspected carcinogens, as well as experiments involving animals and humans suggesting a no-effect level for chloroform. In support of their claim that threshold levels can be established for carcinogens, they cited the existence of *in vivo* biological processes and human exposure to natural carcinogens without adverse health effects. With regard to the third NAS principle, they claimed EPA did not consider the significance of the detoxification and repair mechanisms operative in animals and humans in its health assessment of THMs. Finally, with regard to the fourth NAS principle, they claimed EPA ignored the guidelines for assessing risk for chloroform as set forth in EPA's "Interim Guideline for Carcinogen Risk Assessment." The comments also faulted EPA for using only the linear model for extrapolating the NCI animal data to humans, while ignoring the data presented by Roe, Eschenbrenner, and Miller, as well as the estimates of risk by Tardiff using the "margin of safety," "probit-log" and "two step" extrapolation models.

The EPA has carefully evaluated all available data and believes it has properly followed the four NAS principles. Each of the commenters' concerns have been thoroughly considered in determining the health

basis of the regulation. EPA has used the present state-of-the-art in toxicology in using the NCI bioassay study on the carcinogenicity of chloroform for assessing cancer risk to humans. The studies by Roe, Eschenbrenner, and Miller were not suited for risk extrapolation because either the dosages were not high enough to observe the response or the experiments were not performed for long enough time periods to observe tumorigenic response.

The question of threshold and/or no threshold for carcinogens is discussed elsewhere in this Appendix, in the preamble and in EPA's Statement of Basis and Purpose accompanying these regulations. The linear non-threshold model is a conservative risk model and consistent with the method used by the NAS. The basis of the regulation is that a human health risk exists even though precise quantification of the risk cannot be made using current toxicological procedures. Therefore, EPA's regulatory approach is to minimize human exposure to these potential carcinogens to as low a level as is feasible.

62. Some commenters said that EPA ignored the relationship between dose and time-to-tumor observation in assessing the health risk of a carcinogenic material.

EPA does recognize the potential relationship between dose and time-to-tumor, but this has not been taken into consideration in the calculation of risk because scientific methods and data are not currently available to adequately perform such a computation.

63. Dr. Timothy DeRouen, representing the Coalition for Safe Drinking Water, critiqued the epidemiological studies cited by EPA in the proposed regulations. He discussed the studies for a possible relationship between chlorinated drinking water and cancer mortality. His principal points and EPA's responses are as follows:

(1) Dr. DeRouen commented that although some consistencies exist to support the premise of a relationship between organic chemicals in drinking water and cancer risk, comparable inconsistencies exist that were not pointed out by EPA.

EPA has concluded that in epidemiological studies, inconsistencies are always present, due to one or more confounding factors. Because of this and as noted in the preamble and EPA's Statement of Basis and Purpose, EPA did not rely upon the epidemiology studies as a basis for the regulations. Rather, they have been found to support the hypothesis, as Dr. DeRouen noted, that some relationship may exist between cancer risk and chloroform in

drinking water. EPA's conclusions based on animal studies are justified.

(2) Dr. DeRouen said that correlational studies are the crudest kind of epidemiology investigation and their results should be used to suggest more definite studies. However, they are not considered accurate enough for decision-making.

EPA believes that since several of the individual correlational studies when evaluated collectively suggest that chloroform in water poses a risk, the hypothesis is strengthened. Drs. Upton and Schneiderman of the NCI supported this conclusion and suggested that reducing TTHM concentrations by 100 micrograms per liter could lead to a decrease in cancer rates of up to 7.5% in men and 10% in women for bladder cancer and between 7.5% and 8.5% in large intestinal cancer for women and men, respectively, assuming the validity of one of the studies.

(3) Dr. DeRouen also commented that the epidemiological studies did not adequately adjust the data for confounding variables such as urbanization and industrialization. He noted that in a recent study where additional variables were considered, the statistical significance "dissipated" relative to GI and urinary tract cancers.

As noted previously, taking into account the multitude of interplaying factors in epidemiology studies is a complex problem. EPA has carefully evaluated the available study results, and taken collectively, they generally support the hypothesis of the risk of chloroform in drinking water. The commenter's concerns that the impact of several variables "dissipated" when re-examined may be valid but these issues do not vitiate the basis of the regulations. EPA's finding that chloroform may pose a carcinogenic risk to humans is based primarily upon animal toxicity studies.

(4) Dr. DeRouen noted that the epidemiological studies would have more credence if the health effects were uniformly distributed over all race-sex groups, but that this was usually not the case in the drinking water/organics studies.

EPA believes that it is not necessary to have a uniformly distributed effect over all race-sex groups, although when this is the case conclusions can be more strongly supported. Rarely in even well-controlled experimental studies are the effects uniformly distributed among sex groups even in in-bred strains of test animals.

(5) Dr. DeRouen stated that unexpected and unlikely statistically significant correlations were reported for some cancer sites, and significant

relationships were not seen in humans for liver or kidney cancers, which were the effects seen in the animal tests.

EPA believes that site-specific cancers are not necessarily observed across species. This was supported by Drs. Upton and Kennedy of NCI and FDA, respectively.

(6) Dr. DeRouen commented that in many studies, the presence of statistically significant results would change depending upon the statistical or analytical model selected. In general, therefore, the statistical methods are usually specified in the protocol before performing the study.

EPA agrees with this comment and it is supported by Dr. Hoel from NIEHS. The epidemiological studies cited were correlational, preliminary and hypothesis generating, rather than case-control or prospective in nature. It is therefore expected that further studies could be designed based on those already conducted which could be more definitive. EPA has pointed out many of these same problems in its evaluation of the epidemiological studies in the preamble accompanying the February 9, 1978, proposal, and EPA's Statement of Basis and Purpose as did the NAS, Safe Drinking Water Committee, in its review of the studies. The primary basis for the regulations is the animal toxicology studies including the NCI bioassay results demonstrating that chloroform was an animal carcinogen under conditions of the test. EPA has concluded that the epidemiological studies conducted so far are sufficient hypothesis-generating studies, and taken as a whole are supportive of the animal data in pointing out the possible human risk. The pros and cons of the studies are discussed in more detail in the Agency's Statement of Basis and Purpose for these regulations.

64. Dr. F. J. C. Roe, representing the Coalition for Safe Drinking Water, submitted written and oral comments. He also submitted copies of his recent studies on chloroform carcinogenicity. His major points and EPA's responses are as follows:

(1) Dr. Roe stated that regulatory contexts usually do not distinguish between highly dangerous cancer-causing agents and those such as chloroform for which the evidence is equivocal.

EPA has concluded that the SDWA directs EPA to protect the public health from any contaminant which "may have any adverse effect" on human health. Nevertheless, EPA evaluated the risk of exposure to chloroform to the general population based on its toxic effects, cancer potential and exposure potential. Chloroform has been found to be an

animal carcinogen with well known acute and chronic effects. Its presence in treated finished drinking water potentially exposes over 100 million people over their lifetime. EPA believes this to pose a substantial risk.

(2) He stated that the NCI bioassay was faulty because it erroneously used corn oil as the vehicle for administering chloroform to the test animals, not enough control animals were used, and concomitant exposure to other carcinogens occurred. He urged that prior to setting an MCL, the study should be repeated in a wider dose range and under better controlled conditions.

Although additional studies taking into account the above objections may lead to slightly different responses one way or the other, EPA believes that the findings of carcinogenicity would remain unchanged in light of previously reported studies on other carcinogens and the statistically significant results obtained in the NCI chloroform bioassay. EPA is sponsoring a study that takes into account Dr. Roe's suggestions. However, it would not be prudent to delay setting an MCL for THMs pending refinement of the data, given the existence of credible data to date demonstrating an adverse health risk.

(3) Dr. Roe stated that the Theiss (pulmonary adenomas) study produced erroneous statistical results.

As stated in the Statement of Basis and Purpose, EPA did not rely on the Theiss study to reach its conclusions. The study was only included as background information to the published positive results.

(4) Dr. Roe said that the four principles of the NAS (1977) and the non-threshold risk concept for carcinogenesis are not scientifically sound.

As discussed previously, EPA relied upon the judgment of the National Cancer Institute who commissioned and evaluated the bioassay of chloroform in rats and mice and concluded that significant rates of chloroform-related tumors were detected in both rats and mice under conditions of the test. The National Academy of Sciences in "Drinking Water and Health" (1977) concluded that chloroform had been shown by those and other studies to be an animal carcinogen and, as such, should be considered a risk to humans. Other studies sponsored by EPA are underway further refining our knowledge of the toxicology and carcinogenicity of chloroform, which may provide more information on dose-response relationships.

Federal health regulatory agencies have carefully considered various

approaches for dealing with potential human carcinogens and the possible presence or lack of thresholds for carcinogens. These agencies have concluded as a matter of policy that in the absence of evidence to the contrary it must be assumed that substances that have been shown to be animal carcinogens in properly conducted tests, must be assumed to be potential human carcinogens, and that threshold exposure levels below which there would be no risk have not been demonstrated experimentally.

Drs. Upton, Kennedy, Bingham, King and Bates/Hoel of NCI, FDA, OSHA, CPSC, and NIEHS, respectively, supported EPA and these principles enunciated by the NAS.

(5) Dr. Roe also submitted results of three additional mouse studies that were conducted on chloroform along with his written comments.

In the first of these studies, the mice of an outbred Swiss albino strain (ICI) were given daily (six days per week) oral doses of 17 mg/kg or 60 mg/kg chloroform in tooth paste base for 77-80 weeks. The animals were observed for an additional 16 weeks. Twenty-two percent of the high dose males developed adenomas or hydronephromas of the kidney. In the second study male mice of the same strain responded similarly, with 18% of the high dose having histologically the same tumors.

In the third mouse study, the response of the male mice of four strains were compared. In each of the four strains, 52 male mice were given 60 mg of chloroform per kilogram (six days per week) using the same experimental design as previously outlined. As in the previous experiments, mice of the ICI Swiss strain developed more kidney tumors than did the vehicle control mice. No excess tumors were found in the remaining three strains.

Dr. Cipriano Cueto (representing the National Cancer Institute) stated to the National Drinking Water Advisory Council (1978) that Dr. Roe's results were entirely consistent with the NCI studies. Dr. Cueto also said that the results of other studies relied upon by Roe using rat and Beagle dog study were also not surprising based on the doses administered and the previous NCI results.

(6) Dr. Roe calculated that a 70 kilogram man consuming one liter of water containing 100 ppb of chloroform would have a 7,000 fold safety factor. Dr. Roe assumed that the mouse was the most sensitive animal model and that 10 mg/kg was the "no effect level" for kidney tumor enhancement.

As discussed previously, the EPA has found that thresholds for carcinogens have not been sufficiently demonstrated and that this type of calculation therefore contradicts that policy and does not take into account many of the principles enunciated by the NAS. Thus, EPA has rejected Dr. Roe's approach as unacceptable for regulating carcinogens in drinking water.

(7) Dr. Roe also stated that it was "reasonable to assume that none (of the THMs) is more active than chloroform itself," and, therefore, a level of 300 ppb for chloroform alone would be as protective as a similar limit for all THMs as proposed by EPA. However, Dr. Roe did not present any scientific facts or principles to support his statement that other THMs are less potent than chloroform.

As discussed earlier, EPA has found that *in vitro* mutagenicity data indicate that the other THMs are more active mutagens than chloroform. EPA's regulation of total THMs has also been based upon the similar chemical structures and expected biological activity, of all THMs, the availability of analytical methods that analyze for total THMs, and the fact that all THMs are produced as a result of disinfection practice.

(8) Dr. Roe stated that animal detoxification mechanisms were overwhelmed by the administration of very high doses of chloroform in the animal studies. He based his comment on the following observations:

(1) Females of the species did not appear at risk.

(2) Ames type assays were negative.

(3) Tumor formation was dependent upon an indirect mechanism which involved both sex hormone status and a deviation from normal metabolic breakdown pathways.

In EPA's opinion, there are many experimental conditions under which one sex or the other is more sensitive to the compound under test and therefore this difference in the results is not surprising. The *in vitro* assays of the Ames type have been shown to be insensitive to certain chemical classes; simple chlorinated hydrocarbons appear to be one of these chemical classes. Dr. Roe presented direct evidence to support his third hypothesis; however, other studies have shown a relationship between chloroform toxicity and testosterone levels in animals.

(9) Dr. Roe asserted that consistent increased survival of three different species exposed to chloroform suggested a beneficial effect.

EPA has carefully reviewed the available data and EPA does not believe

the evidence is sufficient to support this contention.

64. Dr. Arthur Furst, representing the Coalition for Safe Drinking Water, submitted comments, many of which are similar to those detailed previously. His comments and EPA's responses are set forth below:

(1) Dr. Furst commented that the NCI chloroform bioassay was not definitive, that results from animal studies using high dosages (100,000 ppb) cannot be extrapolated to predict human health effects at low dosages (100 ppb), and that human risks cannot be extrapolated from animal data. These comments have been responded to elsewhere in this Appendix.

(2) He also faulted EPA's risk assessment for not following the sigmoid curve which he claimed should represent the dose-response that one would expect from biologically active compounds. EPA has found that the dose-response curve for carcinogens would not be expected to be represented by a sigmoid curve. Rather a linear non-threshold curve is believed to be appropriate in assessing a health risk from carcinogens. Carcinogenic, reversible, or non-reversible progressive chronic response are not "all-or-none" responses, nor do they lend themselves to easily definable criteria for categorizing the biological response. Therefore, carcinogenic responses do not satisfy the conditions upon which use of the sigmoid curve is based.

(3) Dr. Furst also claimed that there is a threshold for carcinogens, and that the histological type of tumors produced in the experimental animals was not related to the human tumor response.

As discussed previously, EPA's policy with respect to risk assessment for potential carcinogens is to include the conservative linear-dose response curve and not a carcinogenic response threshold level so as not to underestimate potential risks. With regard to the type of tumors in animals versus human tumor responses, EPA has concluded that the animal toxicity studies can be related to man irrespective to differences in tumor sites. This is supported by Drs. Upton, Kennedy, Bingham, King, Bates and Hoel of NCI, FDA, OSHA, CPSC, and NIEHS, respectively.

(4) Dr. Furst claimed that release of benzo(a)pyrene could be a factor to be considered when GAC treatment is used. He questioned the use of GAC, claiming that the treatment of water by GAC may be replacing THMs with more potent carcinogens such as benzo(a)pyrene.

EPA has evaluated the available studies involving extraction of GAC

with distilled water and the total level of PAHs in the effluent were found to be insignificant.

(5) Dr. Furst suggested that a time to tumor experimental design be undertaken using multiple dose levels. EPA is currently proceeding with additional tests. However, regulatory action need not await the outcome to such studies.

(6) Dr. Furst stated that carcinogens in the environment can interact, thus modifying each others' responses. He stated that there is no association between organic chemicals in New Orleans drinking water and cancer rates.

EPA agrees that synergistic interactions between toxic chemicals can occur which is all the more reason to consider approaches that will reduce human exposures where feasible. The association between New Orleans drinking water and increased cancer rates has been suggested by epidemiology studies but is far from conclusive. EPA's discussion of the epidemiological studies is set forth elsewhere in this Appendix, in the preamble, and in EPA's Statement of Basis and Purpose.

(7) Dr. Furst objected to the conditions under which the NCI bioassay was carried out. He felt that a single massive dose by oral gavage does not compare with a minute fraction of the dose ingested throughout the day. The doses used in this bioassay overwhelmed the ability of the liver to detoxify the THMs. EPA has concluded that high dose animal studies are necessary and valid methods of determining risks from human exposure at lower doses.

These questions are more fully addressed elsewhere in this Appendix and in the Statement of Basis and Purpose.

65. Comments submitted by Dr. Frank L. Lyman on behalf of the Coalition for Safe Drinking Water and EPA's responses are as follows:

(1) Dr. Lyman commented that the 100 ppb level for TTHMs is unnecessarily restrictive.

As discussed thoroughly in the Statement of Basis and Purpose, EPA believes that human exposure to carcinogenic chemicals should be minimized to the extent feasible. The level of 0.10 mg/l TTHM in this interim regulation is based upon technological and economical feasibility in that the level is achievable and is consistent with the SDWA mandate to reduce exposure to contaminants in drinking water to the extent feasible, taking into consideration the potential health risks.

(2) Dr. Lyman stated that the possible benefits of GAC are unknown and GAC

itself may have harmful effects on water quality.

The questions of benefits and release of harmful chemicals have been addressed previously in this Appendix. Data to date do not support the speculation that there are adverse effects from GAC use.

(3) Dr. Lyman noted that chloroform has been found in tomatoes, grapes and milk and is also produced in food processing. He urged that the total body burden must be considered in regulating chloroform.

As discussed previously in this Appendix and in the Statement of Basis and Purpose, EPA has examined several exposure routes of chloroform and feels that regulations controlling chloroform in drinking water are necessary since water can be the most significant source of exposure under typical conditions.

(4) Dr. Lyman commented that, in spite of wide-spread chronic industrial exposure to chloroform, there is no evidence of human carcinogenesis.

The unavailability of occupational risk data showing a precise relationship between exposure to chloroform in the work place and human carcinogenesis does not mean that chloroform poses no risk to humans. Systematic and scientifically sound studies have not yet been conducted to evaluate the possibility. However, in view of the positive carcinogenic response in the animal studies, EPA feels that regulations are appropriate at this time. This will result in reduced human exposure to many disinfection by-products, not only chloroform and THMs.

(5) Dr. Lyman stated that animal studies are useful in comparing effects on laboratory animals to human toxicity. EPA concurs with the use of animals in evaluating toxic effects of chemicals. EPA believes that carcinogenicity is one of several end points of toxicity and the statement by Dr. Lyman presented below also applies to the carcinogenic effect: "The toxicologist uses lower animals to predict the effects of chemicals on humans. Generally, the toxicity of a compound in lower animals is similar to that in humans on a dose per unit of body weight, particularly if the metabolic pathways and detoxification mechanisms are similar." Thus, EPA believes that cancers produced by chemicals in animals are evidence of human risk. Drs. Upton, Kennedy, Bingham, King, Bates and Hoel of NCI, FDA, OSHA, CPSC, and NIEHS, respectively, support this belief as presented in Appendix B.

(6) Dr. Lyman criticized EPA's use of the results of animal studies exposing them to high dosages to extrapolate

human health risks associated with exposure to low dosages on the grounds that high dose exposures were more likely than low doses to cause tissue damage which he claimed was a prerequisite to cancer introduction by chloroform. In support of his argument, he noted that high doses of liver and kidney toxins cause cancer to develop in those organs. He concluded that because lower dosages were less likely to damage tissue, they were also less likely to result in the development of tumors.

EPA does not agree with Dr. Lyman's hypothesis that tissue damage is necessary for cancer induction. The scientific community has not yet reached a consensus on this point. There are chemicals that cause the kind of tissue damage Dr. Lyman describes that do not go on to cause cancer (i.e., 1,1,1-trichloroethane). Thereby, tissue damage does not invariably lead to a carcinogenic response. Therefore, it is prudent and consistent with current scientific thought to assume that low level exposure to carcinogens, which may or may not cause direct tissue damage poses a human health risk. FDA, CPSC, NIEHS, NCI, and EPA agree that site-specific cancers are not necessarily found across species.

(7) Dr. Lyman also said that thresholds for carcinogens exist.

EPA believes that thresholds for carcinogens have not been experimentally demonstrated to date. This is thoroughly discussed in the preamble and in response to previous comments.

(8) Dr. Lyman commented that in order to produce tumors in people it would require drinking 15,000-30,000 gallons of water daily with a concentration of 311 ppb to produce tumors in humans.

EPA has evaluated this estimate and has concluded that the direct comparison of dosages from animals to humans in this way neither scientifically valid nor relevant.

(9) Dr. Lyman noted that one must differentiate between a real and potential risk.

EPA believes that sufficient information has been presented to demonstrate a risk from THM exposure that reduction of that risk is feasible and regulation is warranted and required by the SDWA.

66. Comments submitted on behalf of the Coalition for Safe Drinking Water by Farrell R. Robinson and EPA's responses are as follows:

(1) Dr. Robinson said that surveys of drinking water in various cities did demonstrate the presence of THMs but there were no realistic historical data

with which these levels could be compared; the available epidemiological data are unreliable.

EPA is relying primarily on the animal toxicity data as the basis of the regulation. The correlational epidemiology is not inconsistent with this data, and assuming that similar raw water quality and chlorine dosage have been used over previous years which is a reasonable assumption in most cases, THM levels would not be significantly different.

(2) Dr. Robinson commented that there are significant problems in interpreting animal data and extrapolating their results to humans.

This has been responded to in detail above and in the preamble and Statement of Basis and Purpose.

(3) Dr. Robinson said NCI bioassays are only applicable to that strain of animals under the conditions of testing.

EPA believes that properly conducted studies in test animals do provide evidence of potential human risks from those chemicals. This is thoroughly discussed elsewhere in this Appendix, the preamble and the Statement of Basis and Purpose.

(4) Dr. Robinson commented that there is a threshold for carcinogens. He claimed that threshold cancer response extrapolations are contrary to scientific fact.

EPA believes that thresholds for carcinogens have not been demonstrated at this time. This is discussed in detail in the preamble, this Appendix and in the Statement of Basis and Purpose.

(5) Principles enunciated by the NAS are not principles but opinions.

EPA has relied on the NAS as representing the consensus of scientific opinion on these subjects.

67. Comments submitted by Dr. Alexander Grendon on behalf of the Coalition of Safe Drinking Water were as follow, that:

(1) EPA has not balanced costs against benefits for GAC. He stated that the costs were enormous while the theoretical benefits are minor.

(2) That there is a threshold for carcinogenesis.

(3) That cancer death rates have been declining for 25 years.

(4) That a person would have to live 74 years before a tumor would develop due to chloroform exposure.

(5) A person would have to live 35 lifetimes before dying from chloroform induced cancer.

Most of these comments has been addressed previously in this appendix and in the preamble. In regards to the time-to-tumor question, EPA feels that the state-of-the-art of toxicology does

not provide for estimates such as those Dr. Grendon submitted. Rates of some types of cancer have declined but other types have risen in the past 25 years.

68. Comments submitted by Dr. Richard Reitz, representing Dow Chemical Company, and EPA's responses are as follows:

(1) Dr. Reitz commented that the use of GAC for organic chemical removal may release chemicals into treated waters that are carcinogenic. EPA has responded to this comment elsewhere in this Appendix.

(2) Dr. Reitz criticized EPA's use of the most conservative model for assessing human risk which he said greatly overestimated the risk of trace levels of organic chemicals in drinking water. He said that NCI should develop two separate risk extrapolation models, one for direct-acting carcinogens and another for metabolically model activated carcinogens. He commented that the extrapolation developed by Dr. David Rall and used by EPA's Cancer Assessment Group (CAG) was not appropriate for THMs since THMs are not direct-acting carcinogens but are carcinogens generally "involved in the variable drug metabolizing system," for which that model was not designed.

In support of his argument that EPA used an inappropriate risk model, he cited inconsistencies between the mouse and rat data in the NCI study. He noted that although based on the model one would have expected rats to be more sensitive to chloroform than mice, even though metabolism was required to activate chloroform, the opposite results were obtained. He therefore concluded that EPA's model overestimated the risk to rats by eleven-fold and overestimated the risk to humans by an even greater margin. Using pharmacokinetic data, Dr. Reitz predicted that the "chloroform risk" was one order of magnitude lower than that estimated by EPA.

EPA recognizes that other risk estimation models exist. Depending upon various assumptions, the computed levels can be significantly different among models. EPA has relied on the scientific expertise in the area of risk assessment of the NAS and EPA's CAG for its risk models which are considered to be state-of-the-art. While these models may be more conservative than Dr. Reitz's model, EPA believes that this was a reasonable and responsible choice in view of the SDWA's mandate to protect the public health.

EPA further found that the NAS-CAG models were appropriate for use for chloroform based on the best scientific evidence available. The fact that the results from the rat studies showed them to be four times less sensitive to

chloroform than mice does not mean that the data cannot be used for human risk extrapolation. Species variability in cancer inductions mechanisms could be an explanation for this apparent inconsistency.

(3) Dr. Reitz stated that the doses of chloroform used in the NCI study produced gross liver damage long before the production of tumors. Thus, he said it was impossible to determine whether the carcinogenicity of chloroform was due to a genotoxic reaction or simply a secondary reaction to the extensive liver and kidney necrosis (i.e., epigenic).

As discussed previously, EPA feels high dosage tests are necessary and valid. EPA believes that large doses over long periods of time are required to produce effects in relatively small populations of animals and to increase the experimental sensitivity. The NCI, FDA, CPSC and NIEHS have concurred with this conclusion.

Moreover, one cannot conclude that the use of high dosages in animal experiments means that the resulting carcinogenicity is attributable solely to a toxic assault on the organ. Rather, toxic assaults leading to organ damage do not always evoke a carcinogenic response. Therefore, the particular chemical, in this case chloroform, must also be implicated as a factor when a carcinogenic response is found.

(4) Dr. Reitz commented that since chloroform belongs to the class of chemicals which require metabolic activation for toxicity, one would expect the incidence of oncogenicity to be greater in those species with greater capacities to metabolize the chemical. Dr. Reitz assumed that the metabolic capability of rats was greater than mice and that of humans was greater than rats. He also postulated that glutathione availability was the limiting factor in the rate of macromolecular binding (a factor hypothesized as being a critical step in carcinogenicity).

Since more glutathione was expected to be available after lower dose exposures, Dr. Reitz argued that the chemical's carcinogenic potential at low dosages would be lower than if exposure had occurred at higher dosages. Based on these assumptions, he concluded that the human risk for chloroform was 71 times less than that estimated by CAG. Dr. Reitz said his calculations would result in an MCL between 0.01 mg/l and 0.1 mg/l for incremental risk of  $10^{-6}$  and  $10^{-5}$ , respectively.

EPA does not agree to with Dr. Reitz's assumptions. His hypothesis concerning glutathione availability as a limiting factor in cancer induction has been shown not to be valid in tests using

other similarly metabolized carcinogens at low exposure levels. Despite the differences between Dr. Reitz's and EPA's risk estimates, no specific risk value served as the basis for EPA's TTHM MCL, which was based upon technical feasibility factors.

(5) Dr. Reitz cited a study whereby chronic industrial exposure (50-125 ppm) of British Confectionary workers to chloroform for up to 10 years twenty years ago did not produce convincing epidemiology to link chloroform with increased cancer risk. EPA recognizes the difficulties involved with conducting epidemiology studies and this subject has been addressed previously.

(6) Dr. Reitz recommended the following changes be incorporated into the proposed THM regulation:

(a) That the MCL should be increased to 1.0-10 mg/l based on health effects data and risk models.

The MCL was based on a positive qualitative findings of carcinogenicity from animal bioassays and not on any quantitative risk extrapolation. The MCL for chloroform is that level which can be achieved given technological and economic feasibility factors.

(b) That definitive interspecies metabolism studies be carried out to allow a rationale species/species extrapolation. EPA agrees that this would provide additional information and has additional studies underway. However, regulatory action need not await the outcome of such studies.

(c) That a complete evaluation of the chloroform carcinogenicity potential below 200 mg/l be conducted. More research can always be conducted. EPA has an ongoing carcinogenicity study to evaluate chloroform at low levels of exposure. Again, regulatory action need not be delayed.

69. Dr. Joseph Schlosser, of Tulane Medical School, stated that:

(1) Bronchiogenic cancer should not be related to the Mississippi River and drinking water.

(2) The petrochemical industry could be the cause of increased cancer in Southern Louisiana.

(3) There is no consistent thinking about what the reason is for the high incidence of cancer in the New Orleans area. EPA's conclusions regarding the human epidemiology data, including that involving New Orleans, has been discussed elsewhere in this Appendix, in the preamble, and in the Statement of Basis and Purpose.

70. Three commenters said that separate MCLs should be set for each THM, such as chloroform, instead of for total THMs. One of these said that MCLs should only be established for those specific contaminants proven to

be human or animal carcinogens. It was argued that, while all THMs were included in the proposed standards, only chloroform has been shown to produce a dose-response relationship for epithelia tumors of the kidney and renal pelvis in the rat and for hepatocellular carcinomas in mice. The other commenters felt that if standards were set for the THMs, concentrations of all THMs should be converted to the same base such as milliequivalents because grouping THMs on a weight basis and expressing the total THMs as mg/l was scientifically incorrect.

EPA's rationale for establishing a MCL for total THMs, instead of for only chloroform or for each THM separately, is set forth in greater detail in the preamble to these regulations and commenters are referred thereto. Although less is known about the health effects of the other THMs than about chloroform, EPA believes that carcinogenicity need not be proven before regulatory action may proceed. Based upon the similarity in chemical structure of all the THMs and the best available information on the health effects of the other THMs, EPA believes that they, as well as chloroform, pose adverse health risks which should be minimized to the extent feasible. It is also reasonable to regulate total THMs as a group because the gas chromatographic analytical method concurrently analyzes all four THMs; also treatment methods that would be employed to reduce chloroform would simultaneously reduce all of the THMs, since they are all formed through the use of chlorine in the disinfection process.

On the question of the use of milliequivalents instead of milligrams, EPA does not believe that such an approach would necessarily be meaningful since insufficient information is available to judge the relative potency of the four THMs to warrant that approach. Moreover, milligrams per liter have been used as the standard measurement for other drinking water MCLs in the NIPDWR and this term has become familiar to the water utilities that must comply with such standards.

71. In addition to those comments previously discussed, 136 comments were received discussing other issues related to sampling and monitoring for TTHMs. Of these, 43 commenters said they supported the sampling and monitoring requirements in the proposed regulations and found them to be adequate and reasonable. Many of these commenters, however, felt that EPA or the States should conduct or pay for the analyses. Seven commenters opposed

the monitoring program because of the added cost burden on utilities and noted the lack of laboratory facilities and skilled personnel. Fifty-one comments favored the monitoring requirements but opposed any requirement to notify the public of such results on the grounds that the public notification requirement would create unnecessary, expensive paper work as well as a "bad-feeling" among the public. One commenter felt that the reporting of THM monitoring data to EPA by utilities should apply only to States that are qualified for primacy.

EPA has already responded in this Appendix to those comments addressing the cost of monitoring. Under the SDWA, the cost of compliance with these regulations must be borne by the water utilities and EPA has taken this factor into consideration in determining minimum monitoring frequencies and has found that such costs are reasonable. With respect to public notification of the results of TTHM monitoring, Section 1414(c) of the SDWA requires that systems notify the public of any failure to comply with an applicable MCL as well as any failure to perform required monitoring. EPA does not believe that the costs of such public notification are unreasonable and any public notice may include appropriate explanation so that the public is adequately informed, but not misled.

The results of all monitoring are required to be reported to the States so that compliance with the regulations can be properly enforced and technical assistance can be provided to correct problems at the earliest possible time. Systems are also required to report results to EPA until such requirements are adopted by the States with primacy.

72. Twenty-four additional commenters raised questions regarding laboratory capabilities, quality assurance of results, and sampling and analytical procedures. They commented about the lack of qualified and experienced laboratories in the U.S. to perform TTHM analyses and about the fact that analytical procedures were not very well defined. They urged that the laboratory certification process be expedited and the analytical procedures be defined as soon as possible.

On the issue of the availability of laboratory facilities and analytical procedures, EPA has responded to those commenters concerned about the availability of sufficient numbers of laboratories capable of providing acceptable analytical data by extending the time frame for initiation of monitoring by systems serving more than 75,000 people from the proposed three months after promulgation to one

year after promulgation. The 10,000 to 75,000 size category of systems are given 3 years from promulgation to begin monitoring. This will allow additional time for State and private laboratories to develop their capabilities and to become certified by EPA to provide data in support of compliance determinations. A quality assurance and certification program is also being developed by EPA, to determine the capable laboratories and to insure the reliability of data.

73. One commenter noted that EPA had failed to quantify the contribution of industrial and municipal discharges to the total concentrations of THMs and their precursors. EPA was urged to control THMs and precursor materials at their source; much of the THM in drinking water could be eliminated by not permitting any industrial or municipal discharges of THMs or THM precursors.

While THMs do occur in some drinking water sources as a result of municipal and industrial discharges, EPA has found that such levels are generally significantly lower than the levels associated with chlorination by-products in the finished drinking water. Most THMs in drinking water are the result of the reaction between chlorine and natural precursor compounds in the treatment process. Therefore, in most cases, control of THMs or precursor compounds municipal or industrial discharges would not likely have any significant effect upon THM levels in the drinking water.

74. One commenter noted that because of the inaccuracy and imprecision inherent in the analytical procedure for measurement of THMs, the MCL should include an allowance for the variations in analytical results.

Although EPA has established a single numerical value for the TTHM MCL, the variabilities associated with the analytical procedures have been taken into account in determining what laboratories will be deemed qualified for performing TTHM analyses. EPA has determined that 20% of 0.10 mg/l TTHM will be an allowable variation in the analytical results for purposes of laboratory approval and certification. Recent data show variations in properly run procedures of 10% to 20% and it is expected that as more experience is gained, the allowable variation will be reduced. Thus, while it is necessary to establish a single MCL value, quality control of laboratories is believed to be the most appropriate way of taking into account analytical variability.

## Appendix B—Summary of Major Comments (for responses, see Appendix A)

### I. Coalition for Safe Drinking Water

#### A. Introduction

The Coalition for Safe Drinking Water is a group of approximately 90 water systems—both investor and municipally owned—formed to present information and comments concerning EPA's proposed regulations.

The Coalition's doubts and disagreements about the substance of the proposed regulation centered upon EPA's conclusions that:

- (1) The trace amount of THMs normally found in drinking water may pose a health risk, and,
- (2) The GAC treatment technique is, at this time, required to reduce the levels of THMs in drinking water.

The Coalition also doubted EPA's authority to propose these new requirements as "amendments" to the interim primary drinking water regulations.

#### B. Legal Issues

1. EPA lacks the authority to promulgate the regulations as amendments to the National Interim Primary Drinking Water Regulations. The regulations are entirely new regulations and not modifications and to propose these regulations requires recommendations from NAS. The NAS has not made this recommendation. Further, the GAC technology was not available in December 1974 and all exemptions for water systems to avoid hardship will end on January 1, 1981.

#### C. Health Issues

1. Chloroform poses no potential cancer risk and there are no available data that support the premise of a causal relationship between the concentrations of THMs normally found in drinking water and cancer in humans.

2. The epidemiological studies that have been conducted concerning drinking water and a possible connection with cancer in humans are inconclusive.

3. EPA has relied upon animal studies for the hypothesis that trace organics pose a health concern. However, extrapolation of results in animal cancer studies to humans is fraught with its own set of problems and uncertainties.

4. The proposed regulations are based upon fear of the unknown using equivocal animal data and extrapolation models and methods which are unreliable.

5. The study cited by EPA to support the carcinogenicity of chloroform was "a preliminary screening test (by the

National Cancer Institute (NCI) and not a definitive study." The study was not intended to be used to extrapolate health effects of chloroform to drinking water levels. The NCI study was inadequately controlled and did not follow proper scientific protocols. A new EPA/NCI study is underway and corrects deficiencies of the previous study and it is recommended that the implementation of any regulations be delayed until the studies are complete.

6. Dr. Roe's studies showed a no observed effect at 595,000 (drinking water equivalent) ppb chloroform in drinking water. Dr. Roe recommended a level of 300 ppb THM in drinking water based upon his studies of chloroform. Dr. Francis J. Roe's study with chloroform on dogs, rats and four strains of mice at low dose levels does not produce tumors in animals. Three hundred ppb would provide a margin of safety of 2,000. However, EPA uses 500 as a margin of safety.

7. EPA's proposed MCL of 100 ppb is needlessly low and will require costly additions or changes to water treatment facilities without any corresponding benefit being obtained.

8. There are no health effects data which support carcinogenicity of the other THMs.

9. Based upon most appropriate statistical extrapolation model, the level of the THM MCL should be no lower than 0.30 mg/l since this provides a more than adequate margin of safety. However, this level is still too low to be justified on a cost-benefit basis if GAC is required.

10. There is no hard evidence that low level exposure to any of the chemicals produces cancer.

11. EPA estimates of environmental exposures to chloroform appear to be erroneous and it is suggested that EPA make every effort to obtain correct values for contributions from air, food and water. Also, there is the possibility that *in vivo* formation of chloroform and other THMs in the human body may occur. At this point, the available data suggest that more cost-effective avenues, such as control of chloroform in the work place, may be available for reducing THMs in the environment than by implementing the proposed THM MCL.

12. The concentrations of THMs detected in water systems present no mutagenic, teratogenic, or acute, subchronic, and chronic toxicological health risk to the public.

13. EPA has misconstrued the four very general "principles" stated by NAS. EPA has not properly used these principles and has ignored the available data. With regard to the first principle,

EPA has not taken into account a number of variables in extrapolation of the animal data to humans; some of these variables include differences in such items as species response to carcinogens, weight between animals and man, intake of food and water, and routes of exposure. With regard to the second principle, EPA has ignored existing scientific data that show a threshold for no-effect responses with respect to a number of suspected carcinogens; there are a number of suspected carcinogens for which animal experiments have established a threshold level of effects; experiments involving humans suggest a no-effect level exists for chloroform; *in vivo* biological processes militate in favor of a no-effect level; and human exposure to natural carcinogens without adverse health effects support thresholds. With regard to the third principle, EPA has not considered the significance of the detoxification and repair mechanisms operative in animals and humans in its health assessment of THMs. With regard to the fourth principle, EPA has ignored the guidelines for assessing risk for chloroform as set forth in EPA's "Interim Guidelines for Carcinogen Risk Assessment." EPA used only the linear model for extrapolating the NCI data to humans, ignored the data of Roe, Eschenbrenner, and Miller, and ignored the estimates of risk by Tardiff using the "margin of safety," "probit-log" and "two step" extrapolation models.

14. EPA has ignored the relationship between dose and time-to-tumor observation in assessing the health risk of a carcinogenic material.

#### D. Treatment Technology and Economic/Energy Assessments

1. GAC has never been tested or proven on a full-scale operation in the United States and therefore constitutes a nationwide experiment for water treatment.

2. The use of GAC will have substantial financial impact upon water supplies and actual costs are very difficult to predict and are understated. For example, the average capital cost for a system serving over one million people will exceed \$106 million with annual costs of more than \$23 million. Rate increases for residential customers could be in the range of 40-70% and these rates could double where there are specific problems, such as land acquisition. These costs may result in insurmountable problems for some utilities in obtaining financing for GAC treatment facilities. EPA's assessment of the feasibility of financing the GAC treatment facilities is totally out of step with the realities of both the financing

markets and operating needs of the public utilities.

3. The regulations will promote substantial new consumption of energy in operation of the treatment technologies as well as in secondary energy consumptions such as energy usage for GAC regeneration or energy associated with the manufacture and transportation of GAC.

4. The economic impact assessment did not take into account the costs of treating wastewater from GAC operations, such as backwash waters, wet scrubbers and drainage from carbon slurries. It is estimated that 50,000 gallons of waste water will be generated for every one million gallons of drinking water treated and half of that amount will need to be discharged. This will result in increased flows and higher O&M costs at municipal waste water treatment facilities on the order of four percent.

5. The costs were underestimated because of specific factors in the analysis. Based upon the use of GAC, the difference between their potential national cost estimates and EPA's estimates could be explained primarily by four factors (It was not clear to what extent these comments differentiated between costs for GAC for THM control and costs for GAC to control other synthetic organic chemicals in the separate treatment technique requirement):

(a) EPA determined its estimated capital costs for a system based upon the capacity of the entire system; whereas, the coalition estimated the system capital costs as equal to the sum of the capital costs for each treatment plant based on the capacity of each plant.

(b) EPA's estimates were based upon the system capacity on the average day of the peak month; whereas, the coalition's estimates were based upon the actual capacity of each treatment plant.

(c) EPA assumed that some of the affected systems would design facilities for a 9-minute empty bed contact time (EBCT); whereas, the coalition assumed that all GAC facilities would be designed for an 18-minute EBCT.

(d) The coalition's estimates for specific systems, based on the costing out of the individual components, were 30-80% higher than EPA's proposed estimates.

6. EPA has underestimated the costs of implementing the regulation by underestimating the number of impacted systems. This is the result of basing the analyses upon a model for the water supply industry and using a number of unfounded assumptions regarding the

number of systems that purchase water and use alternate disinfectants. Also, assumptions and predictions based upon NOMS were used to determine the level of THMs and the extent to which systems would be impacted further. Instead, EPA should have conducted sampling at all systems and based its estimates upon those results. The estimate of the 390 systems serving greater than 75,000 persons was not derived from EPA's Inventory of Systems but was based upon the TBS Policy Testing Model which left out numerous systems including all Federal Systems (e.g. District of Columbia) and the States of Hawaii and Alaska. Also, the hypothetical results of the TBS Model were never checked on to compare with reality. Finally, the number of systems using specific treatment systems such as GAC or no cost modifications were arbitrary assumptions.

7. EPA should provide a cost estimate of the stated goal of lowering the MCL at a later time to 50 ppb or 10 ppb.

8. The financial implications on water utilities have been underestimated by EPA. The financial analysis assumed that the rate increase required to finance the necessary revenue requirements would be obtained easily. Also, projections of future capital requirements in addition to the cost of the GAC process for various water systems were not factored into the analysis.

9. In order to install GAC, water utilities will need to raise capital through large rate increases. There are substantial regulatory barriers which could preclude water utilities from obtaining the necessary rate increases. Even if utilities are able to raise the capital funds, the quality of their credit and the attractiveness of their common stock will be severely reduced; this will reduce their ability to obtain external financing for normal water supply activities.

10. The GAC treatment process may result in serious problems and these may outweigh the alleged environmental benefit associated with GAC treatment. These problems include potential air pollution from regeneration and the waste water associated with GAC from contactor disinfection, backwashing, GAC quenching and transport, drainage from carbon slurries, and the regeneration furnace scrubbers. The total volume of waste water resulting from GAC facilities will be approximately 43,000 gallons per million gallons of water treated. Some of the waste water can be recycled but some will require pretreatment prior to disposal.

11. The use of GAC may constitute a larger health hazard than that of the alleged improvement of water quality. The potential health hazards associated with GAC include desorption, chromatographic effect (competitive displacement), resorption (leaching) of heavy metals and polycyclic aromatic hydrocarbons contained in the virgin or regenerated carbon, release of carbon fines, promotion (catalytic reactions) on the carbon itself of hazardous compounds due to chemical reactions between chlorine and organic compounds, bacterial growth on the carbon and air pollution from regeneration facilities. Indirect hazards associated with the GAC usage derive from the manufacture of GAC and the production of energy necessary to operate GAC facilities. These industries, such as the coal industry, pose a high risk of morbidity and mortality to the workers. Because of these concerns, additional research and testing should be conducted prior to implementation of GAC in this country's major waterworks. It is suggested that toxicological evaluations be conducted using concentrated effluents from GAC to assess these potential hazards.

12. EPA is required to analyze the costs of its actions in terms of the benefits hoped to be obtained but EPA has not done that.

#### *E. Other Comments*

1. EPA has failed to quantify the contribution of industrial and municipal discharges to the total concentrations of THMs and their precursors. EPA should control the THMs and precursor materials at their source, and much of the THM in drinking water could be eliminated by not permitting any industrial or municipal discharges of THMs or THM precursors.

2. Because of the inaccuracy and imprecision inherent in the analytical procedure for measurement of THMs, the MCL should include an allowance for the variations in analytical results.

3. If there is a necessity for a MCL for THMs, the MCL should apply to all water systems.

4. The EPA has not addressed the significant primary and secondary environmental problems associated with the use of GAC treatment facilities. Such concerns would normally be considered in an Environmental Impact Statement (EIS) prepared in accordance with the National Environmental Policy Act. However, EPA has stated that the supporting documentation for the regulations is the functional equivalent of an EIS. The EPA documents are not the functional equivalent of an EIS as

they have not remotely analyzed the full potential environmental impact.

## **II. American Water Works Association**

The AWWA's recommendations were:

1. Expanded and accelerated health-effects research on THM and synthetic organics as recommended by the NAS.

2. Establishment of 100 ppb level of TTHMs as a goal for all public water supply systems.

3. Elimination of EPA's proposed requirement of GAC as a treatment technique. In its place, EPA sponsorship of at least four plant-size research projects to gather financial and operating, as well as scientific data.

4. Adoption of EPA's proposed monitoring program for TTHM, except that public notification should not be required.

5. Establishment of an EPA financed and operated monitoring program for synthetic organic chemicals.

## **III. Environmental Defense Fund**

The scientific evidence supporting the regulations is massive and convincing. A number of epidemiology studies have been conducted and provide strong support for the regulations in that taken as a whole they show a consistent pattern of association between drinking water and cancer mortality rates at certain sites.

Using the NAS model and Dr. Roe's data, the estimated risk of ingesting 200 ppb of chloroform over a lifetime in a community the size of one million would be predicted to result in 20 excess cancer deaths.

In a case study in New York State, it was found that for urban area populations drinking chlorinated water had a relative risk of 2.7 compared to populations in urban areas that do not drink chlorinated water. This would result in 250 excess cancer deaths per year in a population of one million.

The benefits of the regulation far outweigh the costs.

Because chloramines are quite ineffective in killing viruses and because viruses are not monitored for in drinking water supplies, any encouragement of chloramine usage should proceed with great caution.

The overwhelming consensus of the scientific community is that testing animals with high dosages is perfectly adequate for relating to humans.

Any delay in promulgating the regulations would be unconscionable, in view of the health effects data, and improper, in view of the requirements of the SDWA.

It is abundantly clear that the public wants safer drinking water since large

numbers are turning to alternative sources of water (bottled water) or to home water treatment devices. Unfortunately, all of the available evidence indicates that these alternatives are not adequate substitutes for municipally treated drinking water.

A regulation applicable to only half the population is not good enough and is inconsistent with the congressional intent that maximum feasible protection of public health be provided. The coverage should be expanded.

The level of the MCL should be the level achievable by the application of the most effective THM reducing technique applied to a relatively clean water source, such as an average water supply. A level of 50 ppb was suggested as a possible alternative to the proposed MCL.

#### IV. Supporting Comments on Health Basis of Regulation

A. Dr. Samuel Epstein, from the University of Illinois, endorsed the following principles:

1. There is no safe level of exposure to a carcinogen.
2. Animal carcinogens should be considered as human carcinogens.
3. Chemicals found to be carcinogenic at high doses in animals are carcinogenic at much lower doses in humans.
4. Chloroform is not the only chemical of concern in contaminated drinking water.
5. If the effects of cigarette smoking are eliminated, cancer rates are not in decline for many sites.
6. There have been 13 epidemiological studies which in context demonstrate an association between chlorinated drinking water and gastrointestinal urinary tract cancer.
7. GAC is a proven water treatment technology.

Dr. Epstein summarized the scientific basis for the regulations as follows:

1. Less than 10% of the 700 chemicals identified have been tested "for their toxicologic and carcinogenic effects."
2. NCI lists 23 of these as carcinogens, 30 as mutagens and 11 as promoting agents.
3. Fish and shellfish which live in polluted water have a high incidence of tumors.
4. Organic extracts of drinking water have been shown to be carcinogenic and mutagenic in animal tests.
5. Organic chemicals in drinking water have shown reproductive effects in one preliminary laboratory test.
6. Epidemiologic studies suggest association between drinking water contaminants and cancer.

B. Susan B. King, chairperson of the U.S. Consumer Product Safety Commission (CPSC) testified that CPSC concurred with the four principles for safety and risk assessment set forth by the NAS in its report, "Drinking Water and Health" and that CPSC also utilized them in their regulations of carcinogens. CPSC also concurred in EPA's conclusion that humans are also susceptible to effects observed in animals, as properly qualified. Ms. King noted that thresholds have not been demonstrated at which a "no effect" level for a carcinogen could be presumed and that varying individual susceptibilities must be considered in a heterogeneous human population. She endorsed testing of chemicals at high levels in animals for assessing possible human risks. CPSC uses factors such as potency, extent and nature of human exposure and human uptake factors in evaluating risks from carcinogens. CPSC's interim policy for regulating carcinogens consists of prohibiting use if a reasonable substitute exists and prohibiting use in the absence of a reasonable substitute unless this would result in both unacceptable social and economic costs. CPSC's approach is comparable to EPA's in that the extent of the exposure and risk are considered as well as the availability and costs of alternatives.

C. Dr. Donald Kennedy, Commissioner of the Food and Drug Administration (FDA), stated that FDA was in full accord with the objective of protecting public health from organic chemicals in drinking water, and endorsed EPA's efforts to reduce exposure to THMs. FDA's recent actions to remove chloroform from drug and cosmetic products were consistent with this position.

The FDA agreed that feeding high doses of a carcinogen to test animals provides the most practical way to predict whether a chemical may cause cancer in humans. Dr. Kennedy noted that "the NCI study was a good one that provided a clear demonstration that chloroform is carcinogenic in experimental animals." FDA concurred with EPA's assessment that, since one cannot conclude with certainty that chloroform is or is not a human carcinogen, prudent public health policy demands that we assume the potential for carcinogenesis in humans unless there is strong evidence to the contrary.

Dr. Kennedy submitted as part of his written comments a paper entitled "What Animal Research Says About Cancer." In summary, it noted that testing with large doses of a chemical is the usual, and in most instances, the

only way to determine whether it causes cancer. Epidemiology is fraught with unreasonable confounding factors from retrospective designs, and therefore, the threshold hypothesis has been rejected on the grounds that no threshold has yet been demonstrated for a carcinogen. However, animal testing can be used to confirm a cause-and-effect relationship between dosage and the incidence of cancer—a relationship general enough to be applied confidently to most hazardous chemicals used over long periods. Moreover, the similarities between cancer in animals and human beings, such as the fact that cancer cells are capable of metastasizing—breaking away from the original cancer and seeding themselves elsewhere—as well as the growing evidence that cancer-causing chemicals interfere with the biochemistry of genetic material, are powerful arguments for the appropriateness of using animals as models for people.

Finally, he found persuasive the comparison between the substances known to cause cancer in human beings and their effect on laboratory animals; or 18 such substances, all but two were also found to be carcinogenic in animals.

D. Dr. Eula Bingham, Assistant Secretary of the Department of Labor and head of the Occupational Safety and Health Administration (OSHA), concurred with Dr. Donald Kennedy's testimony. Dr. Bingham stated that trace contaminants may increase the risk of human cancer and produce other chronic effects. Large numbers of people are placed at risk to chemicals if they are present in drinking water.

Dr. Bingham supported limiting exposure to carcinogens to the lowest feasible level. She stated that animal evidence provides the best qualitative test for assessing potential human carcinogenic risk and that there is presently no means for determining a safe exposure level to a carcinogen. Due to the long latency period for chemical carcinogenesis, it would be imprudent to await the results of human epidemiological studies.

Thus, OSHA's generic proposal to regulate carcinogens relies on animal extrapolation for the detection of carcinogenic activity of chemicals. Because of the statistical insensitivity of laboratory bioassays conducted with limited numbers of animals, she stated that positive test results with experimental animals should generally supersede negative results and that it is appropriate to test chemicals at high exposure levels.

E. Dr. Arthur Upton, Director of the National Cancer Institute submitted

comments. Those points not previously included are stated below.

There are currently 32 carcinogens or suspected carcinogens, 30 mutagens or suspected mutagens, and 11 promoters in drinking water identified from a 1976 list of organic compounds.

Two sets of studies have been carried out to explore the relationship in humans between THMs in drinking water and possible increases in cancer. The first set used presumed measures of THM contamination (i.e., surface waters likely to be chlorinated) vs. ground water (likely to not be chlorinated). The second set used actual measures of THM levels. Nine of ten indirect studies showed a number of statistically significant associations between water quality and cancer.

From the three quantitative studies one could tentatively conclude that cancer of the urinary bladder, and perhaps large intestine are correlated, with THMs in water. He noted that a decrease of 100 micrograms per liter of chloroform in water could lead to a decrease in cancer rates of up to 7.5% in men and 10% in women for bladder cancer and between 7.5 and 8.5% in large intestinal cancer for women and men, respectively. Although these studies did not purport to "prove" a cause-effect association between THMs and cancer, Dr. Upton testified that the weight of evidence showed a "high index of suspicion" of such a relationship.

The additive or more than additive effects from multiple exposure to an array of organic carcinogens in drinking water are of such significance as to warrant an appraisal of the opportunity for modification of the total carcinogenic burden which may be traceable or produced by water processing to reduce the levels of total exposure.

The fact that source carcinogens from drinking water may persist in body tissues makes quantification of these effects difficult.

In the absence of conclusive and quantitative empirical evidence, Dr. Upton supported EPA's reliance on the NAS principles set forth in "Drinking Water and Health." He stated that every dose of a demonstrated carcinogen should be regarded as carrying some potential or presumptive risk. Animal studies must be used to evaluate human carcinogenic risk and to predict the safety of environmental chemicals if human victims are to be spared. He endorsed EPA's proposed TTHM MCL of 100 ppb as a "comprehensive public health measure" in the direction of cancer prevention. Measures taken to control large classes of contaminants were deemed useful for reducing levels

of material whose carcinogenic or mutagenic potential was still unknown.

F. Dr. Upton was accompanied by Dr. Marvin Schneiderman and Dr. Umberto Saffiotti, from NCI, who explained the difficulties in predicting with any degree of accuracy, human risk posed by carcinogens due to low levels of exposure, variability in such levels, measurement problems, long latency periods and other confounding factors. They also endorsed EPA's approach to regulating THMs. Those points stated by Dr. Marvin Schneiderman of the NCI not covered previously are outlined below.

The experimental conditions to detect cancer in 1 in 100 or 1% of the time requires 20,000 animals. Experiments performed with 100 animals per dose group can detect approximately a 3% incidence. Three percent is an enormously high incidence. After all, breast cancer, the most common human cancer has a lifetime probability of 7.5% and lung cancer is 6%. Therefore, three percent is in line with the most common of cancers that cause the greatest concern.

G. Dr. Riley Housewright, National Academy of Sciences, provided a review of the NAS report, "Drinking Water and Health" and stated the following:

Drinking Water regulations have not always been based entirely on health considerations even though protection of consumer health is the unqualified logical goal. For various reasons, drinking water standards have historically been set on the basis of: 1. contaminant background levels, 2. analytical detection limits, 3. technological feasibility of treatment processes, 4. aesthetic considerations, 5. health effects, and combinations of the above. In our report we have attempted to summarize the current knowledge of the health effects of contaminants in drinking water with the purpose of providing the scientific information required for establishing regulations based on health effects.

The NAS report did provide a relatively long list of recommendations for research but these recommendations were not be in lieu of establishing a standard for chloroform. He stated, "there appears to be no question but that, first of all, chloroform is found in drinking water, and it is a carcinogen."

Dr. Housewright also stated that the hazards of ingesting chemical pollutants in drinking water can be assessed in two general ways: epidemiology studies and laboratory studies of toxicity. The insidious effects of chronic exposure to low doses of toxic agents are difficult to recognize, because there are few, if any, early warning signs, and, when signs are ultimately observed, they often imply irreversible effects. In evaluating the potential effects on health of organic compounds found in drinking water, the

NAS principal concern was to assess their carcinogenicity. The risk associated with the ingestion of compounds that were identified as carcinogenic were calculated by extrapolation from animal data. Chloroform was one of the compounds that produced cancer in both rats and mice. The NAS Safe Drinking Water Committee believed that: "these tests were valid and there is a hazard to man associated with the ingestion of chloroform," and that "chloroform and other THMs present a health hazard and that steps should be taken to prevent their formation or to remove them from drinking water." He stated that "Our committee believed these tests were valid and that there is a hazard to man associated with the ingestion of chloroform."

In addition, Dr. Housewright stated the following:

Some early epidemiological studies suggested an association between THMs and cancer. Our review of ten epidemiological studies concluded that the association was small and that there was a large margin of error. In most of the studies evaluated, the THM exposure and duration levels were inferred and confounding factors known to affect cancer incidence, such as cigarette-smoking, occupation, use of alcohol and drugs, socio-economic status and many others, were inadequately controlled. The failure of these studies to clearly establish a positive or negative cause and effect relationship between THMs and cancer resides to some extent in the complexities inherent in doing such studies.

We believe that THMs in drinking water present a human health hazard. The principal basis for this is that exposure to them results in cancer in two species of experimental animals. This conclusion is neither confirmed nor denied by the results of epidemiological studies now available; confirmation would require more sensitive epidemiological studies than have been conducted thus far. The examination of currently available epidemiological evidence gives no reason to change the conclusion of the study *Drinking Water and Health* which recommends that "strict criteria be applied when limits for chloroform in drinking water are established to protect the public health."

H. Dr. Richard Bates, National Institute of Environmental Health Sciences, and Dr. David Hoel, National Institute of Environmental Health Services and National Academy of Sciences, stated that determination of a quantitative standard for a contaminant in drinking water must be based upon a

judgment of the risk that is socially acceptable and upon a scientific estimation of the actual risk posed by the contaminant. Scientific estimation of risk from carcinogenic chemicals is not yet an exact science and until that time, regulatory agencies will have to act according to the most likely interpretation of scientific information while resolving uncertainties in a way that assures protection of the public health.

The four principles from NAS are consistent with what is now known about chemical carcinogenesis. The first principle is now widely accepted. Because epidemiology studies have problems of sensitivity and specificity and harmful effects can only be noted after the damage is done, experimental studies must be relied upon to judge the potential carcinogenicity of a chemical to humans. This practice is supported by the observation that most known human carcinogens are also carcinogenic in experimental animals, that generally the same kinds of metabolic enzymes that activate and detoxify chemical carcinogens are present in both human tissues and experimental animals, and that the general process of cancer development is similar in humans and experimental in animals.

With regard to the second and third principles, which discuss the inability to establish thresholds for carcinogens and the validity of using high doses, the fundamental reason for testing at high dose levels is to enhance the sensitivity of the experimental bioassay to detect a chemical carcinogen. A study of 100 animals can only detect the induction of cancer in no less than one percent of the animals. In order to detect lower levels of risk, it would be necessary to test much larger numbers of animals or to use mathematical procedures to estimate the level of risk from lower levels of exposure. The former approach is normally economically infeasible. The latter approach is based upon debatable scientific assumptions including that there is no threshold below which exposure to a carcinogen entails no risk. At the present time, it cannot be determined unequivocally whether or not thresholds exist or to determine which individuals in the population may or may not be able to tolerate additional exposure to carcinogenic chemicals.

The methods described in "Drinking Water and Health" are the best available to provide guidance on low level risks. In view of the many uncertainties, the safest action is always to reduce exposure to a chemical carcinogen to the lowest feasible level.

With regard to the numerical values that are produced by the models in

terms of human risk per unit of exposure, Dr. Hoel stated that because of the inability to estimate the possible biological errors, biological differences between species and within species, and the experiences with the empirical data, the use of model predictions in ascribing some certain number of deaths in a population is not necessarily appropriate. He stated that the models could be used to rank carcinogens relative to their potency.

#### V. Calgon Corporation

As an example of comments providing information and data concerning the technical basis of the regulations, comments submitted by Calgon Corporation are summarized below.

1. GAC has been widely used for over 18 years in potable water applications to control taste, odor, and color in the U.S. and presently over 60 plants in the U.S. use GAC. In these applications, GAC has worked effectively with minimal problems without hazard or injury.

2. GAC is used to remove organic chemical contaminants from potable water in 21 cities in Europe and have been operating for up to 10 years. Most of these plants have on-site reactivation and have been operating without any adverse effects or undue difficulties.

3. GAC does not get into the water system from the filter beds. The bulk of the carbon lost is lost during the periodic backwashing of the carbon beds.

4. GAC does not add heavy metals or polynuclear aromatics (PAH) to the finished water. A composite sample of four activated carbons contained 7.36% ash of which 0.08% was soluble in water. Analysis for inorganic compounds showed very low levels but most significant is that the soluble portion of the ash is dissolved and discarded during the backwashing operation. During reactivation, the ash compounds are liberated and driven off in the furnace or the quench tank which contains boiling hot water, extracting any water soluble ash that is present.

Activated carbon is made by a multi-step process which is not conducive to the formation or retention of PAHs. The raw material, coal, is subject to an oxidation step, followed by a devolatilization step, followed by a long term high temperature (up to 2,000° F) activation step during which time the carbon granules are constantly turned in a reducing atmosphere. This process will drive off any materials with boiling points characteristic of PAHs. Experiments by a U.S. FDA laboratory have not been able to extract any PAHs from activated carbon. Activated carbon is such a strong adsorbent that even a

small amount of polynuclear aromatics that might exist would be strongly adsorbed by the carbon.

5. GAC adsorbs organics and allow bacteria naturally present in the water to grow within the carbon bed. However, these bacteria are removed during backwashing and any bacteria in the effluent are easily controlled by disinfection following GAC. Bacterial growth has not been a problem at the more than 60 plants in the U.S. or in the systems in Europe.

6. In addition to its effectiveness in removing taste, odor and color from potable waters, GAC provides other advantages to the water treatment plant, such as savings in the amount of backwash water that is needed. Twenty to 40% savings over conventional media has been experienced by plants using GAC. Also, the demand for chlorine was reduced in these plants by 13% to 14% because organic contaminants had been reduced. Finally, use of GAC has extended service life between backwashes because of a reduction in head loss.

7. Energy requirements, based upon actual experiences, with reactivation of GAC used to treat industrial waste waters, are approximately 8,000 BTUs per pound of reactivated carbon. It is reasonable to expect that reactivation of GAC used to treat drinking water would require less energy. While the reactivation process is relatively energy intensive, the consumption of additional energy for reactivation of GAC from drinking water facilities will be insignificant in view of national consumption of energy.

8. Experience with furnaces reactivating GAC from industrial waste water facilities has shown that proper application of air pollution control technologies can be operated to comply with applicable air pollution requirements.

9. Compliance with the MCL is feasible and use of GAC for this purpose would most likely be for precursor removal.

10. The allotted time for compliance with the MCL is adequate. Systems that elect to use GAC to reduce THMs could be modified very quickly. For most applications, replacement of the existing filter media with GAC will be adequate. For greater bed depths, the necessary contact time can probably be achieved with relatively simple modifications of the existing filter systems. A few systems may require greater bed depth and thus additional time will probably be needed for those systems to make the modifications.

11. The utilities' cost estimates for GAC are overstated in that the capital

required for reactivation is based upon a redundant furnace. Based upon actual experience, it has not been necessary to have such substantial stand-by reactivation capacity. A more reasonable approach would be to utilize two furnaces of equal size with a total capacity equal to the peak flow rates and provide for stocking of buffer carbon to meet needs during periods of maintenance. Also, the use of an outside reactivation service could be used during long down times of the furnace. Detailed cost estimates were provided for GAC for two system sizes.

12. In order for the demand for GAC to be spread over a reasonable time frame, it is recommended that the regulations be phased in three segments separated by three months each.

#### VI. National Drinking Water Advisory Council

It is the opinion of the National Drinking Water Advisory Council (NDWAC) that EPA is justified in establishing an MCL of 100 ppb for THMs in finished drinking water on the basis of health hazard and feasibility. However, the MCL should not be restricted to utilities serving greater than 75,000 persons. The Council recommends that an MCL of 100 ppb THM also apply to utilities serving between 10,000 and 75,000 persons beginning three years after implementation of the regulation covering those utilities serving greater than 75,000 persons.

The Council also recommends that the implementation of the MCL of 100 ppb THM for utilities serving less than 10,000 persons be at the option of the agency having primacy in each state. The agency having primacy will be more familiar with the water supplies in that state and be better able to evaluate the potential for THM formation as a result of chlorine disinfection. This would serve to avoid unnecessary financial burdens on these utilities. The decision for compliance by those utilities should be made within five years.

The Council believes that the THM requirements should initially apply to all water sources (surface and ground). Where no THM problem is determined, the state should have the responsibility to determine the need for future monitoring requirements in order to assure that THMs do not pose a problem in the future.

It is imperative that the EPA publicly clarify its position relative to lowering the MCL for THM below 100 ppb. If the Agency believes the current health effects data supports an MCL lower than 100 ppb a detailed justification should be provided.

It is recommended that the EPA reconsider its restriction on the use of chloramines. Chloramines have been effectively used for disinfection in certain water systems for many years. Consequently, the Council believes that EPA's proposed regulation is unduly restrictive.

As previously expressed, the NDWAC is of the opinion that the standard plate count, although useful to the utility operator, should not be established as a regulatory requirement.

The Council concurs with the averaging method described in the proposed regulation for determining the level of THM in drinking water supplies.

#### Appendix C—Analysis of Trihalomethanes

##### Part I: The Analysis of Trihalomethanes in Drinking Water by the Purge and Trap Method

###### 1. Scope

1.1 This method (1) is applicable in the determination of four trihalomethanes, i.e. chloroform, dichlorobromomethane, dibromochloromethane, and bromoform in finished drinking water, raw source water, or drinking water in any stage of treatment. The concentration of these four compounds is totaled to determine total trihalomethanes (TTHM).

1.2 For compounds other than the above-mentioned trihalomethanes, or for other sample sources, the analyst must demonstrate the usefulness of the method by collecting precision and accuracy data on actual samples as described (2).

1.3 Although the actual detection limits are highly dependent upon the gas chromatographic column and detector employed, the method can be used over a concentration range of approximately 0.5 to 1500 micrograms per liter.

1.4 Well in excess of 100 different water supplies have been analyzed using this method. Supplementary analyses using gas chromatography mass spectrometry (GC/MS) have shown that there is no evidence of interference in the determination of trihalomethanes (3). For this reason, it is not necessary to analyze the raw source water as is required with the Liquid/Liquid Extraction Method (4).

###### 2. Summary

2.2 Trihalomethanes are extracted by an inert gas which is bubbled through the aqueous sample. The trihalomethanes, along with other organic constituents which exhibit low water solubility and a vapor pressure significantly greater than water, are efficiently transferred from the aqueous phase to the gaseous phase. These

compounds are swept from the purging device and are trapped in a short column containing a suitable sorbent. After a predetermined period of time, the trapped components are thermally desorbed and backflushed onto the head of a gas chromatographic column and separated under programmed conditions. Measurement is accomplished with a halogen specific detector such as electrolytic conductivity or microcoulometric titration.

2.3 Confirmatory analyses are performed using dissimilar columns, or by mass spectrometry (5).

2.4 Aqueous standards and unknowns are extracted and analyzed under identical conditions in order to compensate for extraction losses.

2.5 The total analysis time, assuming the absence of other organohalides, is approximately 35 minutes per sample.

###### 3. Interferences

3.1 Impurities contained in the purge gas and organic compounds outgassing from the plumbing ahead of the trap usually account for the majority of contamination problems. The presence of such interferences are easily monitored as a part of the quality control program. Sample blanks are normally run between each set of samples. When a positive trihalomethane response is noted in the sample blank, the analyst should analyze a method blank. Method blanks are run by charging the purging device with organic-free water and analyzing in the normal manner.

If any trihalomethane is noted in the method blank in excess of 0.4 µg/l, the analyst should change the purge gas source and regenerate the molecular sieve purge gas filter. *Subtracting the blank values is not recommended.* The use of non-TFE plastic tubing, non-TFE thread sealants, or flow controllers with rubber components should be avoided since such materials generally out-gas organic compounds which will be concentrated in the trap during the purge operation. Such out-gassing problems are common whenever new equipment is put into service; as time progresses, minor out-gassing problems generally cure themselves.

3.2 Several instances of accidental sample contamination have been noted and attributed to diffusion of volatile organics through the septum seal and into the sample during shipment and storage. The sample blank is used as a monitor for this problem.

3.3 For compounds that are not efficiently purged, such as bromoform, small variations in sample volume, purge time, purge flow rate, or purge temperature can affect the analytical

result. Therefore, samples and standards must be analyzed under identical conditions.

3.4 Cross-contamination can occur whenever high-level and low-level samples are sequentially analyzed. To reduce this likelihood, the purging device and sample syringe should be rinsed twice between samples with organic-free water. Whenever an unusually concentrated sample is encountered, it is highly recommended that it be followed by a sample blank analysis to ensure that sample cross contamination does not occur. For samples containing large amounts of water soluble materials, it may be necessary to wash out the purging device with a soap solution, rinse with distilled water, and then dry in a 105°C oven between analyses.

3.5 Qualitative misidentifications are a problem in using gas chromatographic analysis. Whenever samples whose qualitative nature is unknown are analyzed, the following precautionary measures should be incorporated into the analysis.

3.5.1 Perform duplicate analyses using the two recommended columns (4.2.1 and 4.2.2) which provide different retention order and retention times for the trihalomethanes and other organohalides.

3.5.2 Whenever possible, use GC/MS techniques which provide unequivocal qualitative identifications (5).

#### 4. Apparatus

4.1 The purge and trap equipment consists of three separate pieces of apparatus: the purging device, trap, and desorber. Construction details for a purging device and an easily automated trap-desorber hybrid which has proven to be exceptionally efficient and reproducible are shown in Figures 1 through 4 and described in 4.1.1. through 4.1.3. An earlier acceptable version of the above-mentioned equipment is described in (1).

4.1.1 Purging Device—Construction details are given in Figure 1 for an all-glass 5 ml purging device. The glass frit installed at the base of the sample chamber allows finely divided gas bubbles to pass through the sample while the sample is restrained above the frit. Gaseous volumes above the sample are kept to a minimum to eliminate dead volume effects, yet allowing sufficient space for most foams to disperse. The inlet and exit ports are constructed from heavy-walled 1/4-inch glass tubing so that leak-free removable connections can be made using "finger-tight" compression fittings containing Teflon ferrules. The removable foam trap is used to control samples that foam.

4.1.2 Trapping Device—The trap (Figure 2) is a short gas chromatographic column which at <35° C retards the flow of the compounds of interest while venting the purge gas and, depending on which sorbent is used, much of the water vapor. The trap should be constructed with a low thermal mass so that it can be heated to 180° C in less than 1 minute for efficient desorption, then rapidly cooled to room temperature for recycling. Variations in the trap ID, wall thickness, sorbents, sorbent packing order, and sorbent mass could adversely affect the trapping and desorption efficiencies for compounds discussed in this text. For this reason, it is important to faithfully reproduce the trap configurations recommended in Figure 2. Traps containing Tenax only, or combinations of Tenax and other sorbents are acceptable for this analysis.

4.1.3 Desorber assembly—Details for the desorber are shown in Figures 3, and 4. With the 6-port valve in the Purge Sorb position (Figure 3), the effluent from the purging device passes through the trap where the flow rate of the organics is retarded. The GC carrier gas also passes through the 6-port valve and is returned to the GC. With the 6-port valve in the Purge-Sorb position, the operation of the GC is in no way impaired; therefore, routine liquid injection analyses can be performed using the gas chromatograph. After the sample has been purged, the 6-port valve is turned to the desorb position (Figure 4). In this configuration the trap is coupled in series with the gas chromatographic column allowing the carrier gas to backflush the trapped materials into the analytical column. Just as the valve is actuated, the power is turned on to the resistance wire wrapped around the trap. The power is supplied by an electronic temperature controller. Using this device, the trap is rapidly heated to 180° C and then maintained at 180° C with minimal temperature overshoot. The trapped compounds are released as a "plug" to the gas chromatograph. Normally, packed columns with theoretical efficiencies near 500 plates/foot under programmed temperature conditions can accept such desorb injections without altering peak geometry. Substituting a non-controlled power supply, such as a manually-operated variable transformer, will provide nonreproducible retention times and poor quantitative data unless Injection Procedure (8.9.2) is used.

4.1.4 Several Purge and Trap Devices are now commercially available. It is recommended that the following be

taken into consideration if a unit is to be purchased:

- Be sure that the unit is completely compatible with the gas chromatograph to be used for the analysis.
- Use a 5-ml purging device similar to that shown in Figure 1.
- Be sure the Tenax portion of the trap meets or exceeds the dimensions shown in Figure 2.
- With the exception of sample introduction, select a unit that has as many of the purge trap functions automated as possible.

4.2 Gas chromatograph—The chromatograph must be temperature programmable and equipped with a halide specific detector.

4.2.1 Column I is an unusually efficient column which provides outstanding separations for a wide variety of organic compounds. Because of its ability to resolve trihalomethanes from other organochlorine compounds, column I should be used as the primary analytical column (see Table 1 for retention data using this column).

4.2.1.1 Column I parameters: Dimensions—8 feet long x 0.1 inch ID stainless steel or glass tubing. Packing—1% SP-1000 on Carbowax-B (60/80) mesh. Carrier Gas—helium at 40 ml/minute. Temperature program sequence: 45° C isothermal for 3 minutes, program at 8° C/minute to 220° C then hold for 15 minutes or until all compounds have eluted.

Note.—It has been found that during handling, packing, and programming, active sites are exposed on the Carbowax-B packing. This results in tailing peak geometry and poor resolution of many constituents. To correct this, pack the first 5 cm of the column with 3% SP-1000 on Chromosorb-W 60/80 followed by the Carbowax-B packing. Condition the precolumn and the Carbowax columns with carrier gas flow at 220° C overnight. Pneumatic shocks and rough treatment of packed columns will cause excessive fracturing of the Carbowax. If pressure in excess of 60 psi is required to obtain 40 ml/minute carrier flow, then the column should be repacked.

4.2.1.2 Acceptable column equivalent to Column I: Dimensions—8 feet long x 0.1 inch ID stainless steel or glass tubing. Packing—0.2% Carbowax 1500 on Carbowax-C (80/100) mesh. Carrier Gas—helium at 40 ml/minute. Temperature program sequence—60° C isothermal for 3 minutes, program at 8° C/minute to 160° C, then hold for 2 minutes or until all compounds have eluted.

Note.—It has been found that during handling, packing, and programming, active sites are exposed on the Carbowax-C packing. This results in poor resolution of constituents and poor peak geometry. To correct this, place a 1 ft. 0.125 in. OD x 0.1 in.

ID stainless steel column packed with 3% Carbowax 1500 on Chromosorb-W 60/80 mesh in series before the Carbowax-C column. Condition the precolumn and the Carbowax columns with carrier gas flow at 190° C overnight. The two columns may be retained in series for routine analyses. Trihalomethane retention times are listed in Table 1.

4.2.2 Column II provides unique organohalide-trihalomethane separations when compared to those obtained from Column I (see Figures 5 and 6). However, since the resolution between various compounds is generally not as good as those with Column I, it is recommended that Column II be used as a qualitative confirmatory column for unknown samples when GC/MS confirmation is not possible.

4.2.2.1 Column II parameters: Dimensions—6 feet long x 0.1 inch ID stainless steel or glass. Packing—n-octane on Porisil-C (100/120 mesh). Carrier Gas—helium at 40 cc/minute. Temperature program sequence—50° C isothermal for 3 minutes, program at 6°/minute to 170° C, then hold for 4 minutes or until all compounds have eluted. Trihalomethane retention times are listed in Table 1.

5.8 Organic-free water is defined as water free of interference when employed in the purge and trap analysis.

5.8.1 Organic-free water is generated by passing tap water through a carbon filter bed containing about 1 lb. of activated carbon. Change the activated carbon bed whenever the concentration of any trihalomethane exceeds 0.4 µg/l.

5.8.2 A Millipore Super-Q Water System or its equivalent may be used to generate organic-free water.

5.8.3 Organic-free water may also be prepared by boiling water for 15 minutes. Subsequently, while maintaining the temperature at 90° C, bubble a contaminant-free inert gas through the water for one hour. While still hot, transfer the water to a narrow-mouth screw-cap bottle with a Teflon seal.

5.8.4 Test organic free water each day it is used by analyzing according to Section 8.

#### 5.9 Standards.\*

5.9.1 Bromoform—96%—available from Aldrich Chemical Company.

5.9.2 Bromodichloromethane 97%—available from Aldrich Chemical Company.

5.9.3 Chlorodibromomethane—available from Columbia Chemical Inc., Columbia, S.C.

5.9.4 Chloroform—99%—available from Aldrich Chemical Company.

\* As a precautionary measure, all standards must be checked for purity by boiling point determinations or GC/MS assays (5).

#### 5.10 Standard Stock Solutions

5.10.1 Place about 9.8 ml of methyl alcohol into a ground glass stoppered 10 ml volumetric flask.

5.10.2 Allow the flask to stand unstoppered about 10 minutes or until all alcohol wetted surfaces have dried.

5.10.3 Weigh the flask to the nearest 0.1 mg.

5.10.4 Using a 100 µl syringe, immediately add 2 drops of the reference standard to the flask, then reweigh. *Be sure that the 2 drops fall directly into the alcohol without contacting the neck of the flask.*

5.10.5 Dilute to volume, stopper, then mix by inverting the flask several times.

5.10.6 Transfer the solution to a dated and labeled 15 ml screw cap bottle with a Teflon cap liner.

**Note.**—Because of the toxicity of trihalomethanes, it is necessary to prepare primary dilutions in a hood. It is further recommended that a NIOSH/MESA approved toxic gas respirator be used when the analyst handles high concentrations of such materials.

5.10.7 Calculate the concentration in micrograms per microliter from the net gain in weight.

5.10.8 Store the solution at 4° C.

**Note.**—All standard solutions prepared in methyl alcohol are stable up to 4 weeks when stored under these conditions. They should be discarded after that time has elapsed.

#### 5.11 Aqueous Calibration Standard Precautions.

5.11.1 In order to prepare accurate aqueous standard solutions, the following precautions must be observed.

a. Do not inject more than 20 µl of alcoholic standards into 100 ml of organic-free water.

b. Use of 25 µl Hamilton 702N microsyringe or equivalent. (Variations in needle geometry will adversely affect the ability to deliver reproducible volumes of methanolic standards into water.)

c. Rapidly inject the alcoholic standard into the expanded area of the filled volumetric flask. Remove the needle as fast as possible after injection.

d. Mix aqueous standards by inverting the flask three times only.

e. Discard the contents contained in the neck of the flask. Fill the sample syringe from the standard solution contained in the expanded area of the flask as directed in Section 8.5.

f. Never use pipets to dilute or transfer samples or aqueous standards.

g. Aqueous standards when stored with a headspace are not stable and should be discarded after one hour.

h. Aqueous standards can be stored according to Sections 6.4 and 8.6.

5.11.2 Prepare, from the standard stock solutions, secondary dilution

mixtures in methyl alcohol so that a 20 µl injection into 100 ml of organic-free water will generate a calibration standard which produces a response close ( $\pm 10\%$ ) to that of the sample (See 9.1).

5.11.3 Purge and analyze the aqueous calibration standards in the same manner as the samples.

5.11.4 Other calibration procedures (3) which require the delivery of less than 20 µl of a methanolic standard into a 5.0 ml volume of water already contained in the sample syringe are acceptable only if the methanolic standard is delivered by the solvent flush technique (6).

#### 5.12 Quality Check Standard (2.0 µg/l)

5.12.1 From the standard stock solutions, prepare a secondary dilution in methyl alcohol containing 10 ng/µl of each trihalomethane (See Section 5.10.8 Note).

5.12.2 Daily, inject 20.0 µl of this mixture into 100.0 ml of organic-free water and analyze according to Section 8.

#### 6. Sample Collection and Handling

6.1. The sample containers should have a total volume of at least 25 ml.

6.1.1 Narrow mouth screw cap bottles with the TFE fluorocarbon face silicone septa cap liners are strongly recommended.

#### 6.2 Sample Bottle Preparation

6.2.1 Wash all sample bottles and TFE seals in detergent. Rinse with tap water and finally with distilled water.

6.2.2 Allow the bottles and seals to air dry at room temperature, then place in a 105° C oven for one hour, then allow to cool in a area known to be free of organics.

**Note.**—Do not heat the TFE seals for extended period of time (>1 hour) because the silicone layer slowly degrades at 105° C.

6.2.3 When cool, seal the bottles using the TFE seals that will be used for sealing the samples.

6.3 Sample Stabilization—A chemical reducing agent (Section 5.6) is added to the sample in order to arrest the formation of trihalo-methanes after sample collection (3, 7). *Do not add the reducing agent to samples when data on maximum trihalomethane formation is desired.* If chemical stabilization is employed, the reagent is also added to the blanks. The chemical agent (2.5 to 3 mg/40 ml) is added to the empty sample bottles just prior to shipping to the sampling site.

#### 6.4 Sample Collection

6.4.1 Collect all samples in duplicate.

6.4.2 Fill the sample bottles in such a manner that no air bubbles pass through the sample as the bottle is filled.

6.4.3 Seal the bottles so that no air bubbles are entrapped in it.

6.4.4 Maintain the hermetic seal on the sample bottle until analysis.

6.4.5 Sampling from a water tap.

6.4.5.1 Turn on water and allow the system to flush until the temperature of the water has stabilized. Adjust the flow to about 500 ml/minute and collect duplicate samples from the flowing stream.

6.4.6 Sampling from an open body of water.

6.4.6.1 Fill a 1-quart wide-mouth bottle with sample from a representative area. Carefully fill duplicate sample bottles from the 1-quart bottle as noted in 6.4.2.

6.4.7 If a chemical reducing agent has been added to the sample bottles, fill with sample just to overflowing, seal the bottle, and shake vigorously for 1 minute.

6.4.8 Sealing practice for septum seal screw cap bottles.

6.4.8.1 Open the bottle and fill to overflowing, place on a level surface, position the TFE side of the septum seal upon the convex sample meniscus and seal the bottle by screwing the cap on tightly.

6.4.8.2 Invert the sample and lightly tap the cap on a solid surface. The absence of entrapped air indicates a successful seal. If bubbles are present, open the bottle, add a few additional drops of sample and reseal the bottle as above.

6.4.9 Blanks.

6.4.9.1 Prepare blanks in duplicate at the laboratory by filling and sealing sample bottles with organic-free water just prior to shipping the sample bottles to the sampling site.

6.4.9.2 If the sample is to be stabilized, add an identical amount of stabilization reagent to the blanks.

6.4.9.3 Ship the blanks to and from the sampling site along with the sample bottles.

6.4.9.4 Store the blanks and the samples collected at a given site (sample set) together. A sample set is defined as all the samples collected at a given site (i.e., at a water treatment plant, the duplicate raw source waters, the duplicate finished waters and the duplicate blank samples comprise the sample set).

6.5 When samples have been collected according to Section 6, no measurable loss of trihalomethanes has been detected over extended periods of storage time (3). It is recommended that all samples be analyzed within 14 days of collection.

#### 7. Conditioning Traps

7.1 Condition newly packed traps overnight at 180° C with an inert gas flow of at least 20 ml/min.

7.1.1 Vent the trap effluent to the room, not to the analytical column.

7.2 Prior to daily use, condition traps 10 minutes while backflushing at 180° C. It may be beneficial to routinely condition traps overnight while backflushing at 180° C.

7.2.1 The trap may be vented to the analytical column; however, after conditioning, the column must be programmed prior to use.

#### 8. Extraction and Analysis

8.1 Adjust the purge gas (nitrogen or helium) flow rate to 40 ml/min.

8.2 Attach the trap inlet to the purging device. Turn the valve to the purge-sorb position (Figure 3).

8.3 Open the syringe valve located on the purging device sample introduction needle.

8.4 Remove the plungers from two 5 ml syringes and attach a closed syringe valve to each.

8.5 Open the sample bottle and carefully pour the sample into one of the syringe barrels until it overflows. Replace the syringe plunger and compress the sample. Open the syringe valve and vent any residual air while adjusting the sample volume to 5.0 ml. Close the valve.

8.6 Fill the second syringe in an identical manner from the same sample bottle. This second syringe is reserved for a duplicate analysis, if necessary (See Sections 9.3 and 9.4).

8.7 Attach the syringe-valve assembly to the syringe valve on the purging device.

8.8 Open the syringe valve and inject the sample into the purging chamber. Close both valves. Purge the sample for 11.0 ± .05 minutes.

8.9 After the 11-minute purge time, attach the trap to the chromatograph (turn the valve to the desorb position) and introduce the trapped materials to the GC column by rapidly heating the trap to 180°C while backflushing the trap with an inert gas between 20 and 60 ml/min for 4 minutes.

8.9.1 If the trap can be rapidly heated to 180°C and maintained at this temperature, the GC analysis can begin as the sample is desorbed, i.e., the column is at the initial 45°C operating temperature. The equipment described in Figure 4 will perform accordingly.

8.9.2 With other types of equipment (see Section 4.1.4 and Reference 1) where the trap is not rapidly heated or is not heated in a reproducible manner, it may be necessary to transfer the contents of the trap into the analytical column at <30°C where it is once again trapped. Once the transfer is complete (4

minutes), the column is rapidly heated to the initial operating temperature for analysis.

8.9.3 If injection procedure 8.9.1 is used and the early eluting peaks in the resulting chromatogram have poor geometry or variable retention times, then Section 8.9.2 should be used.

8.10 After the extracted sample is introduced into the gas chromatograph, empty the gas purging device using the sample introduction syringe, followed by two 5-ml flushes of organic-free water. When the purging device is emptied, leave the syringe valve open allowing the purge gas to vent through the sample introduction needle.

8.11 Analyze each sample and sample blank from the sample set in an identical manner (see Section 6.4.9.4) on the same day.

8.12 Prepare calibration standards from the standard stock solutions (Section 5.10) in organic-free water that are close to the unknown in trihalomethane composition and concentration (Section 9.1). The concentrations should be such that only 20 µl or less of the secondary dilution need be added to 100 ml of organic-free water to produce a standard at the same level as the unknown.

8.13 As an alternative to Section 8.12, prepare a calibration curve for each trihalomethane containing at least 3 points, two of which must bracket the unknown.

#### 9. Analytical Quality Control

9.1 Analyze the 2 µg/l check sample daily before any samples are analyzed. Instrument status checks and lower limit of detection estimations based upon response factor calculations at five times the noise level are obtained from these data. In addition, response factor data obtained from the 2 µg/l check standard can be used to estimate the concentration of the unknowns. From this information, the appropriate standard dilutions can be determined.

9.2 Analyze the sample blank to monitor for potential interferences as described in Sections 3.1, 3.2, and 3.4.

#### 9.3 Spiked Samples

9.3.1 For laboratories analyzing more than 10 samples a day, each 10th sample should be a laboratory generated spike which closely duplicates the average finished drinking water in trihalomethane composition and concentration. Prepare the spiked sample in organic-free water as described in Section 5.11.

9.3.2 For laboratories analyzing less than 10 samples daily, each time the analysis is performed, analyze at least 1 laboratory generated spike sample which closely duplicates the average finished drinking water in

trihalomethane composition and concentration. Prepare the spiked sample in organic-free water as described in Section 5.11.

9.4 Randomly select and analyze 10% of all samples in duplicate.

9.4.1 Analyze all samples in duplicate which appear to deviate more than 30% from any established norm.

9.5 Maintain an up-to-date log on the accuracy and precision data collected in Sections 9.3 and 9.4. If results are significantly different than those cited in Section 11.1, the analyst should check out the entire analyses scheme to determine why the laboratory's precision and accuracy limits are greater.

9.6 Quarterly, spike an EMSL-Cincinnati trihalomethane quality control sample into organic-free water and analyze.

9.6.1 The results of the EMSL trihalomethane quality control sample should agree within 20% of the true value for each trihalomethane. If they do not then the analyst must check each step in the standard generation procedure to solve the problem (Section 5.9, 5.10, and 5.11).

9.7 Maintain a record of the retention times for each trihalomethane using data gathered from spiked samples and standards.

9.7.1 Daily calculate the average retention time for each trihalomethane and the variance encountered for the analyses.

9.7.2 If individual trihalomethane retention time varies by more than 10% over an eight hour period or does not fall within 10% of an established norm, the system is "out of control." The source of retention data variation must be corrected before acceptable data can be generated.

#### 10. Calculations

10.1 Locate each trihalomethane in the sample chromatogram by comparing the retention time of the suspect peak to the data gathered in 9.7.1. The retention time of the suspect peak must fall within the limits established in 9.7.1 for single column identification.

10.2 Calculate the concentration of the samples by comparing the peak height or peak areas of the samples to the standard peak height (8.12). Round off the data to the nearest  $\mu\text{g/l}$  or two significant figures.

$$\mu\text{g/l} = \left( \frac{\text{peak height sample}}{\text{peak height standard}} \right) \times (\text{conc. std. } \mu\text{g/l})$$

10.3 Report the results obtained from the lower limit of detection estimates along with the data for the samples.

10.4 Calculate the total trihalomethane concentration (TTHM) by summing the 4 individual trihalomethane concentrations in  $\mu\text{g/l}$ .  
 $\text{TTHM } (\mu\text{g/l}) = (\text{Conc. } \text{CHCl}_3) + (\text{Conc. } \text{CHBrCl}_2) + (\text{Conc. } \text{CHBr}_2\text{Cl}) + (\text{Conc. } \text{CHBr}_3)$

10.5 Calculate the limit of detection (LOD) for each trihalomethane not detected using the following criteria:

$$\text{LOD } (\mu\text{g/l}) = \left( \frac{A \times \text{ATT}}{B \times \text{ATT}} \right) (2 \mu\text{g/l})$$

where B = peak height (mm) of 2  $\mu\text{g/l}$  quality check standard

A = 5 times the noise level (mm) at the exact retention time of the trihalomethane or the baseline displacement (mm) from the theoretical zero at the exact retention time of the trihalomethane.

ATT = Attenuation factor

#### 11. Accuracy and Precision

11.1 One liter of organic-free water was spiked with the trihalomethanes and used to fill septum seal vials which were stored under ambient conditions. The spiked samples were randomly analyzed over a 2-week period of time. The single laboratory data listed in Table II reflect the errors due to the analytical procedure and storage.

#### References

- Bellar, T. A., J. J. Lichtenberg, Determining Volatile Organics at the Microgram per Litre Levels by Gas Chromatography, *Journal AWWA*, 66, 739 (December 1974).
- "Handbook for Analytical Quality Control in Water and Wastewater Laboratories." Analytical Quality Control Laboratory, National Environmental Research Center, Cincinnati, Ohio, June 1972.
- Brass, H. J., et al., "National Organic Monitoring Survey: Sampling and Purgeable Organic Compounds, Drinking Water Quality Through Source Protection." R. B. Pojasek, Editor, Ann Arbor Science, p. 398, 1977.
- "The Analysis of Trihalomethanes in Finished Water by the Liquid/Liquid Extraction Method, Method 501.2" Environmental Monitoring and Support Laboratory, Environmental Research Center, Cincinnati, Ohio, 45268, May 15, 1979.
- Budde, W. L. and J. W. Eichelberger, "Organics Analysis Using Gas Chromatography-Mass Spectrometry." Ann Arbor Science, Ann Arbor, Michigan, 1979.
- White, L. D. et al., "Convenient Optimized Method for the Analysis of Selected Solvent Vapors in the Industrial Atmosphere," *AIHA Journal*, Vol. 31, p. 225, 1970.
- Kopfler, F. C., et al. "GC/MS Determination of Volatiles for the National Organics Reconnaissance Survey (NORS) or

Drinking Water, Identification and Analysis of Organic Pollutants in Water," L. H. Keith, Editor, Ann Arbor Science, p. 87, 1976.

Table I—Retention Data for Trihalomethanes

Trihalomethane	Retention time minutes		
	Column I 1% sp1000 Carbopack B	Acceptable Alternative to column I 0.4% Carbowax Carbopack	Column II n-octane Porasil-C
Chloroform	10.7	8.2	12.2
Bromodichloromethane	13.7	10.8	14.7
Chlorodibromomethane (Dibromochloromethane)	16.5	13.2	16.6
Bromoform	19.2	15.7	19.2

Table II—Single Laboratory Accuracy and Precision for Trihalomethanes

Spike $\mu\text{g/l}$	Number samples	Mean $\mu\text{g/l}$	Precision standard deviation	Accuracy percent recovery
Chloroform				
1.2	12	1.2	0.14	100
12.0	8	11	0.16	92
119.0	11	105	7.9	88
Bromodichloromethane				
1.6	12	1.5	0.05	94
16.0	8	15	0.39	94
160.0	11	145	10.2	91
Chlorodibromomethane				
2.0	12	1.9	0.09	95
20.0	8	19	0.70	95
196.0	11	185	10.6	94
Bromoform				
2.3	12	2.3	0.16	100
23.0	8	23	1.38	100
231.0	11	223	16.3	97

BILLING CODE 6560-01-M

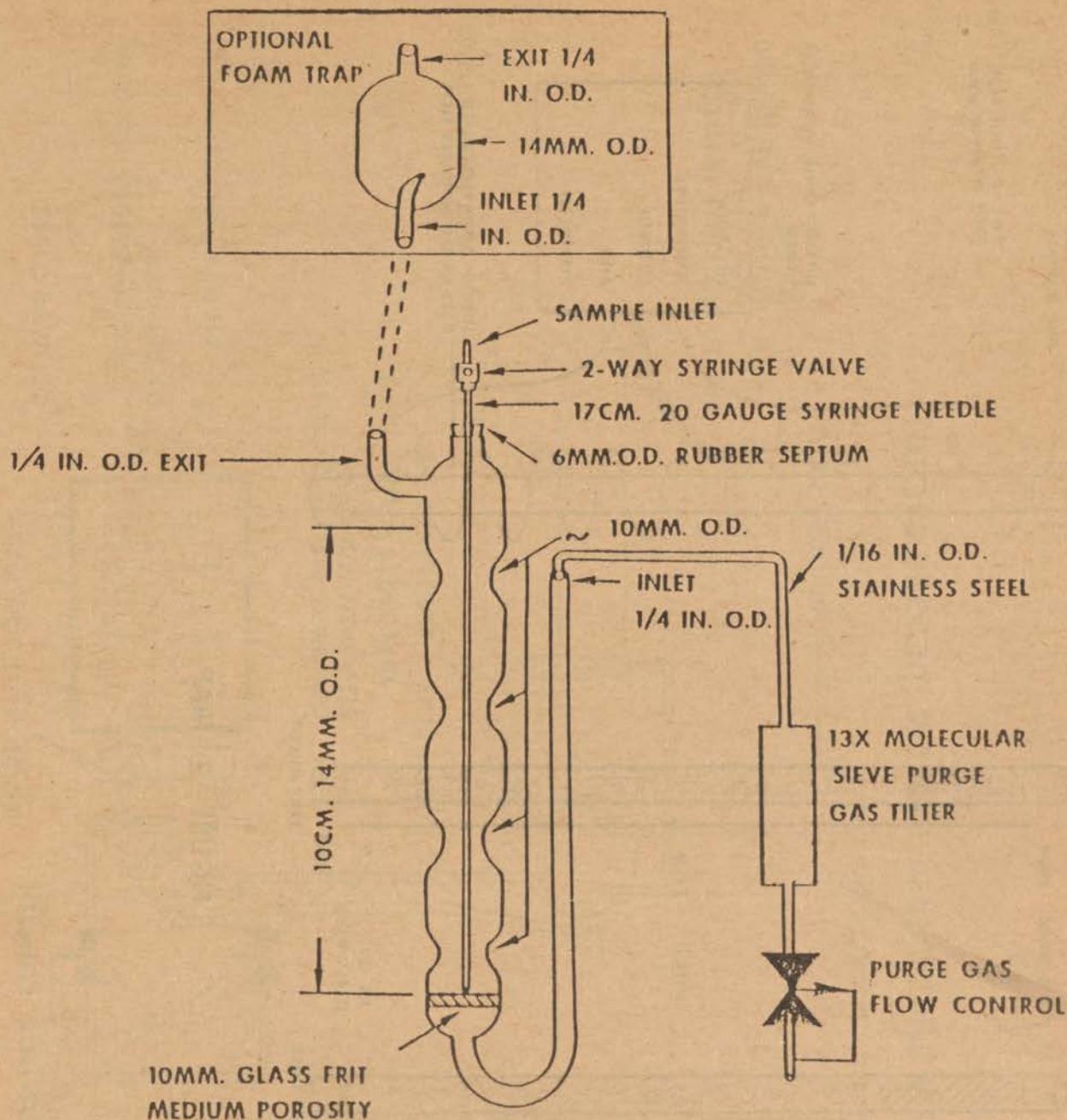
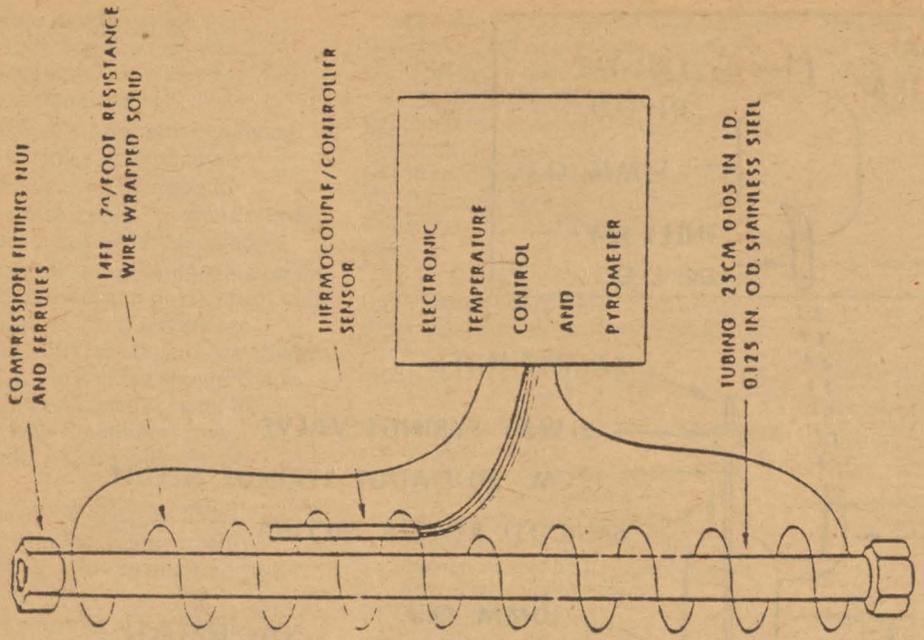


FIGURE 1. PURGING DEVICE

CONSTRUCTION



PACKING PROCEDURE

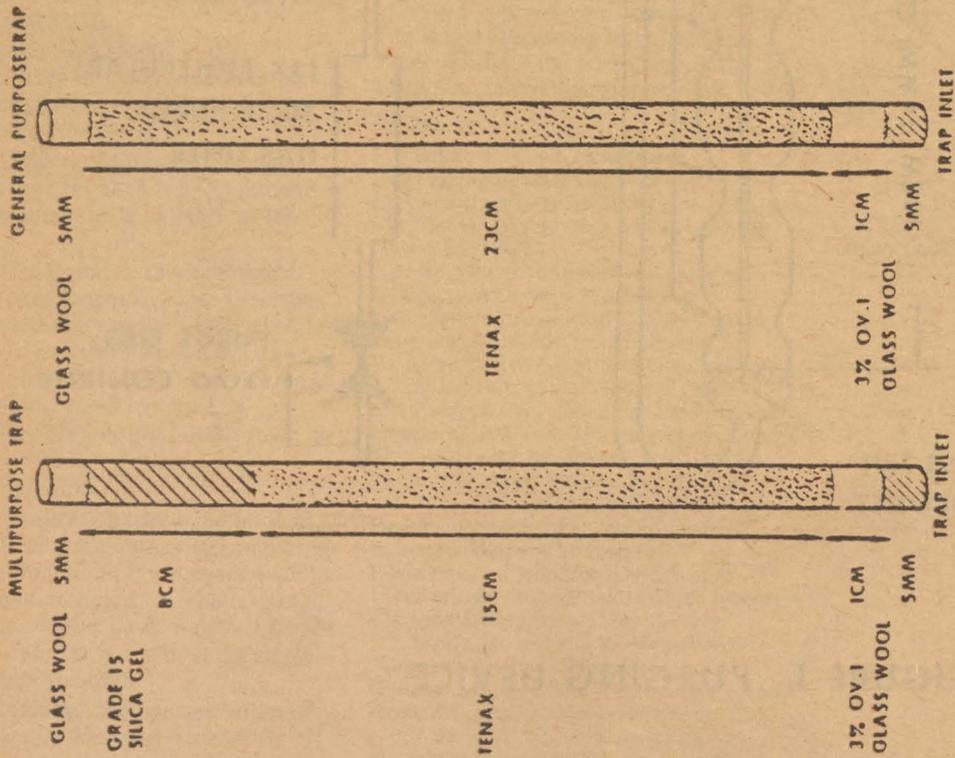


FIGURE 2 TRAP

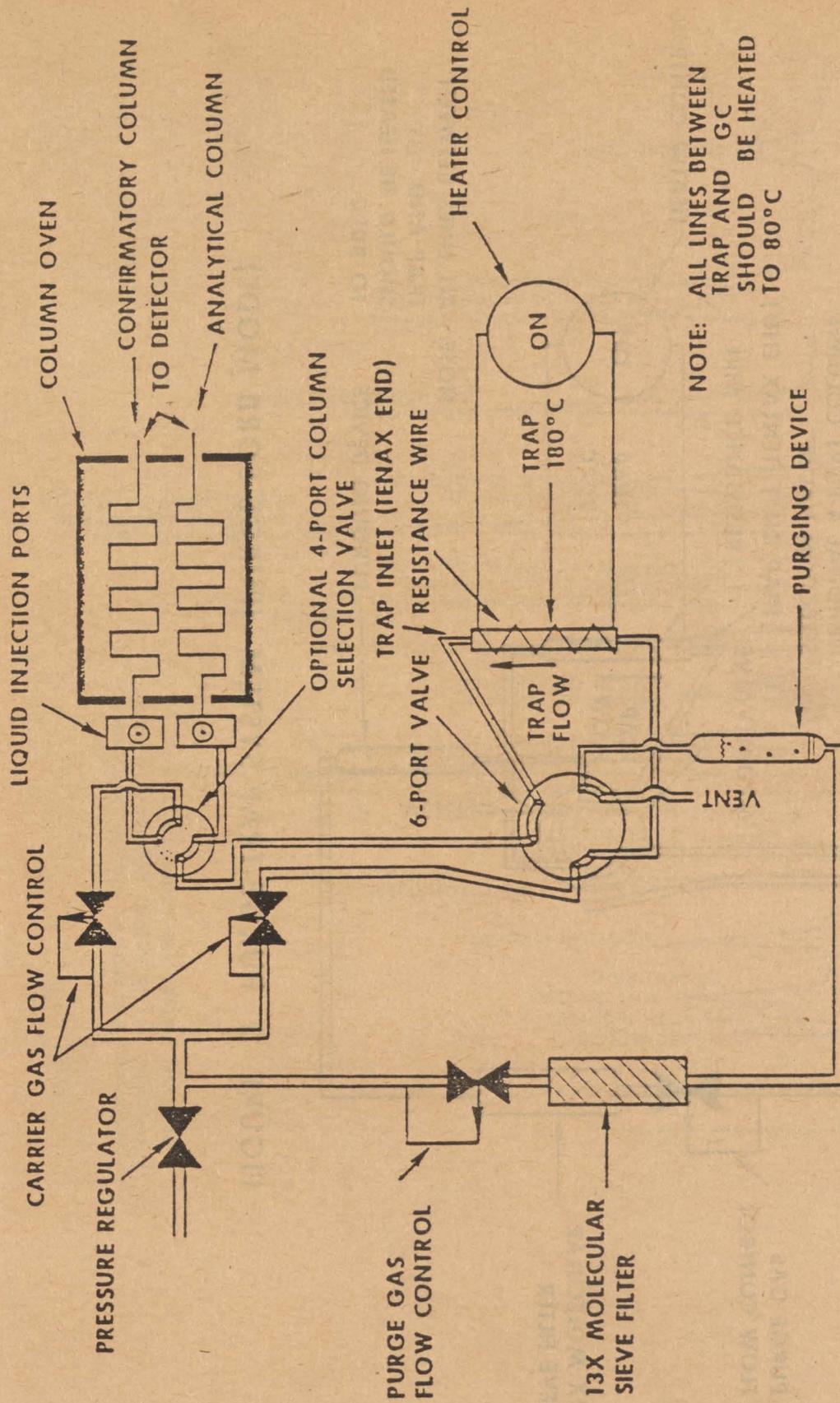
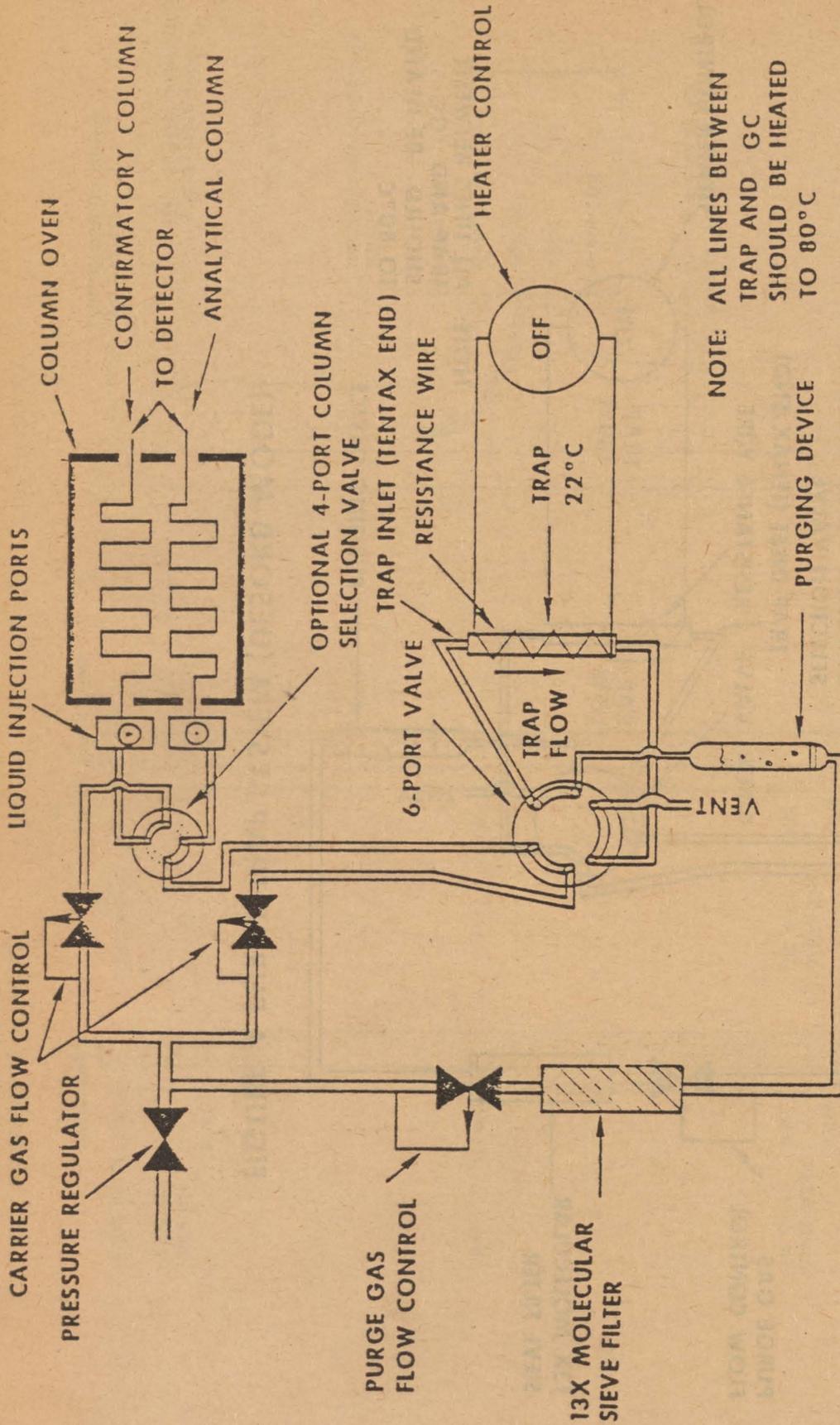
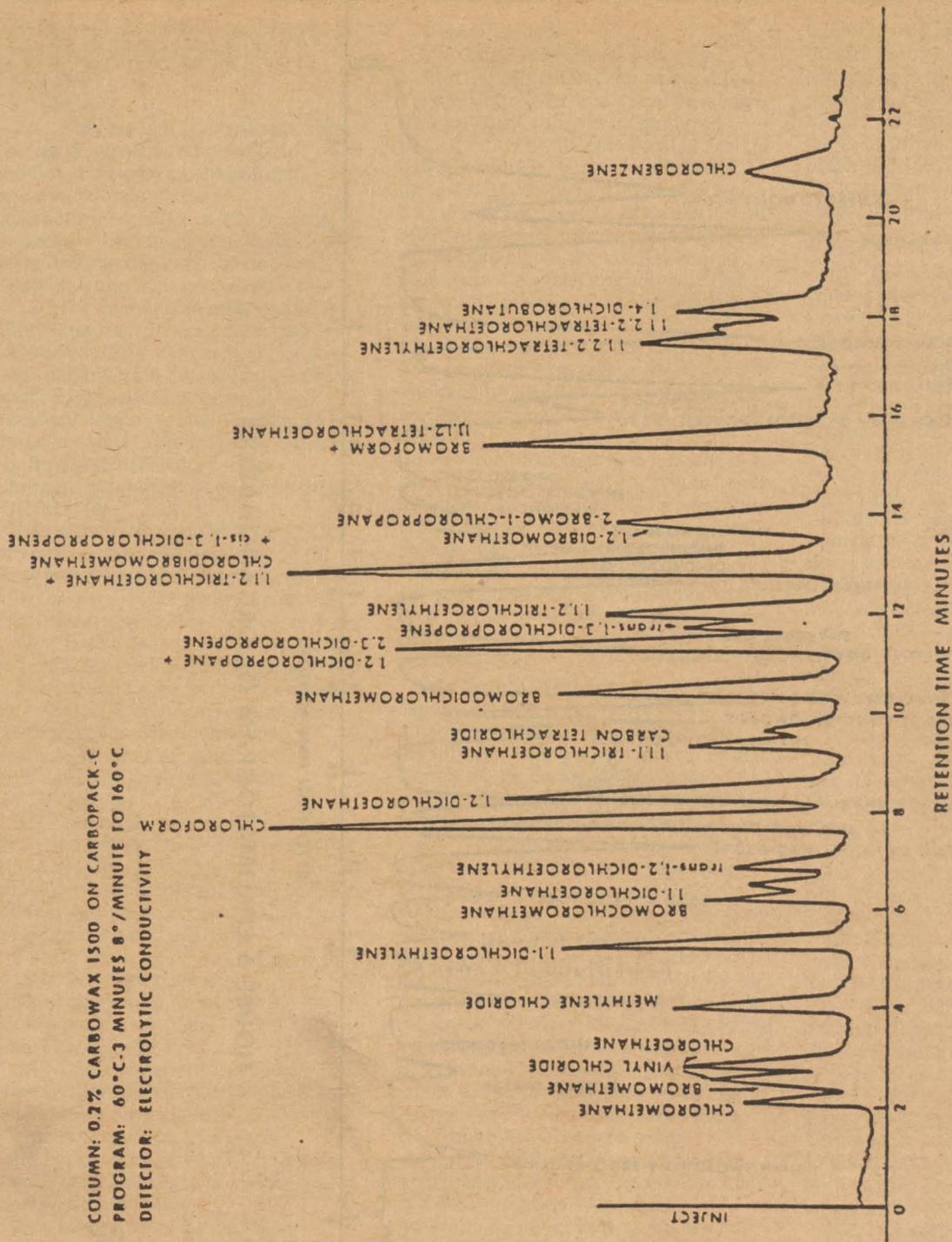


FIGURE 4 PURGE-TRAP SYSTEM (DESORB MODE)



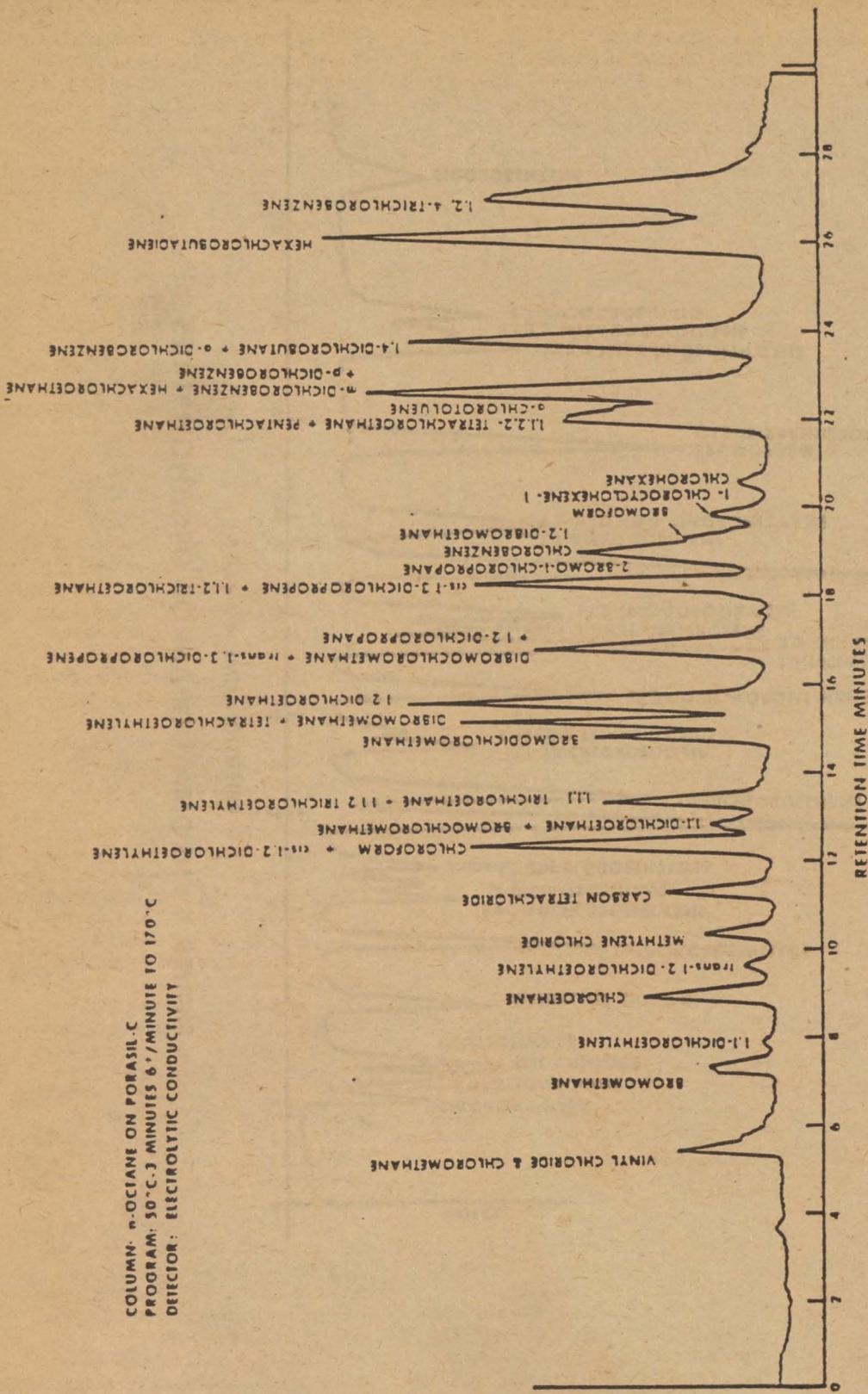
NOTE: ALL LINES BETWEEN TRAP AND GC SHOULD BE HEATED TO 80°C

FIGURE 3 PURGE-TRAP SYSTEM (PURGE-SORB MODE)



COLUMN: 0.2% CARBOWAX 1500 ON CARBOPACK-C  
 PROGRAM: 60°C-3 MINUTES 8°/MINUTE TO 160°C  
 DETECTOR: ELECTROLYTIC CONDUCTIVITY

FIGURE 5 CHROMATOGRAM OF ORGANOHALIDES



COLUMN: n-OCTANE ON PORASIL-C  
 PROGRAM: 30°C-3 MINUTES 6°/MINUTE TO 170°C  
 DETECTOR: ELECTROLYTIC CONDUCTIVITY

FIGURE 6 CHROMATOGRAM OF ORGANOHALIDES

BILLING CODE 6560-01-C

## Part II: Analysis of Trihalomethanes in Drinking Water by Liquid/Liquid Extraction

### 1. Scope.

1.1 This method (1,2) is applicable only to the determination of four trihalomethanes, i.e., chloroform, bromodichloromethane, chlorodibromomethane, and bromoform in finished drinking water, drinking water during intermediate stages of treatment, and the raw source water.

1.2 For compounds other than the above-mentioned trihalomethanes, or for other sample sources, the analyst must demonstrate the usefulness of the method by collecting precision and accuracy data on actual samples as described in (3) and provide qualitative confirmation of results by Gas Chromatography/Mass Spectrometry (GC/MS) (4).

1.3 Qualitative analyses using GC/MS or the purge and trap method (5) must be performed to characterize each raw source water if peaks appear as interferences in the raw source analysis.

1.4 The method has been shown to be useful for the trihalomethanes over a concentration range from approximately 0.5 to 200  $\mu\text{g/l}$ . Actual detection limits are highly dependent upon the characteristics of the gas chromatographic system used.

### 2. Summary

2.1 Ten milliliters of sample are extracted one time with 2 ml of solvent. Three  $\mu\text{l}$  of the extract are then injected into a gas chromatograph equipped with a linearized electron capture detector for separation and analysis.

2.2 The extraction and analysis time is 10 to 50 minutes per sample depending upon the analytical conditions chosen. (See Table 1 and Figures 1, 2, and 3.)

2.3 Confirmatory evidence is obtained using dissimilar columns and temperature programming. When component concentrations are sufficiently high ( $>50 \mu\text{g/l}$ ), halogen specific detectors may be employed for improved specificity.

2.4 Unequivocal confirmatory analyses at high levels ( $>50 \mu\text{g/l}$ ) can be performed using GC/MS in place of the electron capture detector. At levels below  $50 \mu\text{g/l}$ , unequivocal confirmation can only be performed by the purge and trap technique using GC/MS (4, 5).

2.5 Standards dosed into organic free water and the samples are extracted and analyzed in an identical manner in order to compensate for possible extraction losses.

2.6 The concentration of each trihalomethane is summed and reported as total trihalomethanes in  $\mu\text{g/l}$ .

### 3. Interferences

3.1 Impurities contained in the extracting solvent usually account for the majority of the analytical problems. Solvent blanks should be analyzed before a new bottle of solvent is used to extract samples. Indirect daily checks on the extracting solvent are obtained by monitoring the sample blanks (6.4.10). Whenever an interference is noted in the sample blank, the analyst should reanalyze the extracting solvent. The extraction solvent should be discarded whenever a high level ( $>10 \mu\text{g/l}$ ) of interfering compounds are traced to it. Low level interferences generally can be removed by distillation or column chromatography (6); however, it is generally more economical to obtain a new source of solvent or select one of the approved alternative solvents listed in Section 5.1. Interference free solvent is defined as a solvent containing less than  $0.4 \mu\text{g/l}$  individual trihalomethane interference. Protect interference-free solvents by storing in a non-laboratory area known to be free of organochlorine solvents. *Subtracting blank values is not recommended.*

3.2 Several instances of accidental sample contamination have been attributed to diffusion of volatile organics through the septum seal on the sample bottle during shipment and storage. The sample blank (6.4.10) is used to monitor for this problem.

3.3 This liquid/liquid extraction technique efficiently extracts a wide boiling range of non-polar organic compounds and, in addition, extracts the polar organic components of the sample with varying efficiencies. In order to perform the trihalomethane analysis as rapidly as possible with sensitivities in the low  $\mu\text{g/l}$  range, it is necessary to use the semi-specific electron capture detector and chromatographic columns which have relatively poor resolving power. Because of these concessions, the probability of experiencing chromatographic interferences is high. Trihalomethanes are primarily products of the chlorination process and generally do not appear in the raw source water. The absence of peaks in the raw source water analysis with retention times similar to the trihalomethanes is generally adequate evidence of an interference-free finished drinking water analysis. Because of these possible interferences, in addition to each finished drinking water analysis, a representative raw source water (6.4.5) must be analyzed. When potential interferences are noted in the raw source water analysis, the alternate chromatographic columns must be used to reanalyze the sample set. If

interferences are still noted, qualitative identifications should be performed according to Sections 2.3 and 2.4. If the peaks are confirmed to be other than trihalomethanes and add significantly to the total trihalomethane value in the finished drinking water analysis, then the sample set must be analyzed by the purge and trap method (5).

### 4. Apparatus

4.1 Extraction vessel—A 15 ml total volume glass vessel with a Teflon lined screw-cap is required to efficiently extract the samples.

4.1.1 For samples that do not form emulsions 10 ml screw-cap flasks with a Teflon faced septum (total volume is ml) are recommended. Flasks and caps—Pierce—#13310 or equivalent. Septa—Teflon silicone—Pierce #12718 or equivalent.

4.1.2 For samples that form emulsions (turbid source water) 15 ml screw cap centrifuge tubes with a Teflon cap liner are recommended. Centrifuge tube—Corning 8062-15 or equivalent.

4.2 Sampling containers—40 ml screw cap sealed with Teflon faced silicone septa. Vials and caps—Pierce #13075 or equivalent. Septa—Pierce #12722 or equivalent.

4.3 Micro syringes—10, 100  $\mu\text{l}$ .

4.4 Micro syringe—25  $\mu\text{l}$  with a 2-inch by 0.006-inch needle—Hamilton 702N or equivalent.

4.5 Syringes—10 ml glass hypodermic with luerlok tip (2 each).

4.6 Syringe valve—2-way with luer ends (2 each)—Hamilton #86570—1FM1 or equivalent.

4.7 Pipette—2.0 ml transfer.

4.8 Glass stoppered volumetric flasks—10 and 100 ml.

4.9 Gas chromatograph with linearized electron capture detector. (Recommended option—temperature programmable. See Section 4.12.)

4.10 Column A—4 mm ID x 2m long glass packed with 3% SP-1000 on Supelcoport (100/120 mesh) operated at  $50^\circ\text{C}$  with 60 ml/min flow. (See Figure 1 for a sample chromatogram and Table 1 for retention data.)

4.11 Column B—2 mm ID x 2m long glass packed with 10% squalane on Chromosorb WAW (80/100 mesh) operated at  $67^\circ\text{C}$  with 25 ml/min flow. This column is recommended as the primary analytical column. Trichloroethylene, a common raw source water contaminate, coelutes with bromodichloromethane. (See Figure 2 for a sample chromatogram and Table 1 for retention data.)

4.12 Column C—2 mm ID x 3m long glass packed with 6% OV-11/4% SP-2100 on Supelcoport (100/120 mesh) temperature program  $45^\circ\text{C}$  for 12

minutes, then program at 1°/minute to 70°C with a 25 ml/min flow. (See Figure 3 for a sample chromatogram and Table I for retention data.)

4.13 Standard storage containers—15 ml amber screw-cap septum bottles with Teflon faced silicone septa. Bottles and caps—Pierce #19830 or equivalent. Septa—Pierce #12716 or equivalent.

#### 5. Reagents

5.1 Extraction solvent—(See 3.1). Recommended—Pentane<sup>a</sup>. Alternative—hexane, methylcyclohexane or 2,2,4-trimethylpentane.

5.2 Methyl alcohol—ACS Reagent Grade.

5.3 Free and combined chlorine reducing agents—Sodium thiosulfate ACS Reagent Grade—sodium sulfite ACS Reagent Grade.

5.4 Activated carbon—Filtrisorb—200, available from Calgon Corporation, Pittsburgh, PA, or equivalent.

5.5 Standards.<sup>b</sup>

5.5.1 Bromoform 96%—available from Aldrich Chemical Company.

5.5.2 Bromodichloromethane 97%—available from Aldrich Chemical Company.

5.5.3 Chlorodibromomethane—available from Columbia Chemical, Incorporated, Columbia, S.C.

5.5.4 Chloroform 99%—available from Aldrich Chemical Company.

5.6 Organic-free water—Organic-free water is defined as water free of interference when employed in the procedure described herein.

5.6.1 Organic-free water is generated by passing tap water through a carbon filter bed containing carbon. Change the activated carbon whenever the concentration of any trihalomethane exceeds 0.4 µg/l.

5.6.2 A Millipore Super-Q Water System or its equivalent may be used to generate organic-free deionized water.

5.6.3 Organic-free water may also be prepared by boiling water for 15 minutes. Subsequently, while maintaining the temperature at 90° C, bubble a contaminant free inert gas through the water at 100 ml/minute for

one hour. While still hot, transfer the water to a narrow mouth screw cap bottle with a Teflon seal.

5.6.4 Test organic free water each day it is used by analyzing it according to Section 7.

5.7 Standard stock solutions.

5.7.1 Fill a 10.0 ml ground glass stoppered volumetric flask with approximately 9.8 ml of methyl alcohol.

5.7.2 Allow the flask to stand unstoppered about 10 minutes or until all alcohol wetted surfaces dry.

5.7.3 Weigh the unstoppered flask to the nearest 0.1 mg.

5.7.4 Using a 100 µl syringe, immediately add 2 to 3 drops of the reference standard to the flask, then reweigh. *Be sure that the reference standard falls directly into the alcohol without contacting the neck of the flask.*

5.7.5 Dilute to volume, stopper, then mix by inverting the flask several times.

5.7.6 Transfer the standard solution to a dated and labeled 15 ml screw-cap bottle with a Teflon cap liner.

**Note.**—Because of the toxicity of trihalomethanes, it is necessary to prepare primary dilutions in a hood. It is further recommended that a NIOSH/MESA-approved toxic gas respirator be used when the analyst handles high concentrations of such materials.

5.7.7 Calculate the concentration in micrograms per microliter from the net gain in weight.

5.7.8 Store the solution at 4° C.

**Note.**—All standard solutions prepared in methyl alcohol are stable up to 4 weeks when stored under these conditions. They should be discarded after that time has elapsed.

5.8 Aqueous calibration standard precautions.

5.8.1 In order to prepare accurate aqueous standard solutions, the following precautions must be observed:

a. Do not inject more than 20 µl of alcoholic standards into 100 ml of organic-free water.

b. Use a 25 µl Hamilton 702N microsyringe or equivalent. (Variations in needle geometry will adversely affect the ability to deliver reproducible volumes of methanolic standards into water.)

c. Rapidly inject the alcoholic standard into the expanded area of the filled volumetric flask. Remove the needle as fast as possible after injection.

d. Mix aqueous standards by inverting the flask three times only.

e. Discard the contents contained in the neck of the flask. Fill the sample syringe from the standard solution contained in the expanded area of the flask as directed in Section 7.

f. Never use pipets to dilute or transfer samples and aqueous standards.

g. Aqueous standards, when stored with a headspace, are not stable and should be discarded after one hour. Aqueous standards can be stored according to Sections 6.4.9 and 7.2.

5.9 Calibration standards.

5.9.1 Prepare, from the standard stock solutions, a multicomponent secondary dilution mixture in methyl alcohol so that a 20 µl injection into 100 ml of organic-free water will generate a calibration standard which produces a response close ( $\pm 25\%$ ) to that of the unknown. (See 8.1.)

5.9.2 Alternative calibration procedure.

5.9.2.1 Construct a calibration curve for each trihalomethane containing a minimum of 3 different concentrations. Two of the concentrations must bracket each unknown.

5.9.3 Extract and analyze the aqueous calibration standards in the same manner as the unknowns.

5.9.4 Other calibration procedures (7) which require the delivery of less than 20 µl of methanolic standards to 10.0 ml volumes of water contained in the sample syringe are acceptable only if the methanolic standard is delivered by the solvent flush technique (8).

5.10 Quality Check Standard Mixture.

5.10.1 Prepare, from the standard stock solutions, a secondary dilution mixture in methyl alcohol that contains 10.0 ng/µl of each compound. (See 5.7.6 and 5.7.8.)

5.10.2 Daily, prepare and analyze a 2.0 µg/l aqueous dilution from this mixture by dosing 20.0 µl into 100 ml of organic-free water (See Section 8.1).

6. Sample Collection and Handling.

6.1 The sample containers should have a total volume of at least 25 ml.

6.1.1 Narrow-mouth screw-cap bottles with the TFE fluorocarbon faced silicone septa cap liners are strongly recommended.

6.2 Glassware Preparation.

6.2.1 Wash all sample bottles, TFE seals, and extraction flasks in detergent. Rinse with tap water and finally with distilled water.

6.2.2 Allow the bottles and seals to air dry, then place in an 105° C oven for 1 hour, then allow to cool in an area known to be free of organics.

**Note.**—Do not heat the TFE seals for extended periods of time (> 1 hour) because the silicone layer slowly degrades at 105° C.

6.2.3 When cool, seal the bottles using the TFE seals that will be used for sealing the samples.

6.3 Sample stabilization—A chemical reducing agent (Section 5.3) is added to all samples in order to arrest the formation of additional

<sup>a</sup> Pentane has been selected as the best solvent for this analysis because it elutes, on all of the columns, well before any of the trihalomethanes. High altitudes or laboratory temperatures in excess of 75°F may make the use of this solvent impractical. For these reasons, alternative solvents are acceptable; however, the analyst may experience baseline variances in the elution areas of the trihalomethanes due to coelution of these solvents. The degree of difficulty appears to be dependent upon the design and condition of the electron capture detector. Such problems should be insignificant when concentrations of the coeluting trihalomethane are in excess of 5 µg/l.

<sup>b</sup> As a precautionary measure, all standards must be checked for purity by boiling point determinations or GC/MS assays.

trihalomethanes after sample collection (7.9) and to eliminate the possibility of free chlorine reacting with impurities in the extraction solvent to form interfering organohalides. **DO NOT ADD THE REDUCING AGENT TO SAMPLES AT COLLECTION TIME WHEN DATA FOR MAXIMUM TRIHALOMETHANE FORMATION IS DESIRED.** If chemical stabilization is employed, then the reagent is also added to the blanks. The chemical agent (2.5 to 3 mg/40 ml) is added in crystalline form to the empty sample bottle just prior to shipping to the sampling site. If chemical stabilization is not employed at sampling time then the reducing agent is added just before extraction.

#### 6.4 Sample Collection.

6.4.1 Collect all samples in duplicate.

6.4.2 Fill the sample bottles in such a manner that no air bubbles pass through the sample as the bottle is filled.

6.4.3 Seal the bottle so that no air bubbles are entrapped in it.

6.4.4 Maintain the hermetic seal on the sample bottle until analysis.

6.4.5 The raw source water sample history should resemble the finished drinking water. The average retention time of the finished drinking water within the water plant should be taken into account when sampling the raw source water.

6.4.6 Sampling from a water tap.

6.4.6.1 Turn on the water and allow the system to flush until the temperature of the water has stabilized. Adjust the flow to about 500 ml/minute and collect duplicate samples from the flowing stream.

6.4.7 Sampling from an open body of water.

6.4.7.1 Fill a 1-quart wide-mouth bottle with sample from a representative area. Carefully fill duplicate sample bottles from the 1-quart bottle as in 6.4.

6.4.8 If a chemical reducing agent has been added to the sample bottles, fill with sample just to overflowing, seal the bottle, and shake vigorously for 1 minute.

6.4.9 Sealing practice for septum seal screw cap bottles.

6.4.9.1 Open the bottle and fill to overflowing. Place on a level surface. Position the TFE side of the septum seal upon the convex sample meniscus and seal the bottle by screwing the cap on tightly.

6.4.9.2 Invert the sample and lightly tap the cap on a solid surface. The absence of entrapped air indicates a successful seal. If bubbles are present, open the bottle, add a few additional drops of sample, then reseal bottle as above.

6.4.10 Sample blanks.

6.4.10.1 Prepare blanks in duplicate at the laboratory by filling and sealing sample bottles with organic-free water just prior to shipping the sample bottles to the sampling site.

6.4.10.2 If the sample is to be stabilized, add an identical amount of reducing agent to the blanks.

6.4.10.3 Ship the blanks to and from the sampling site along with the sample bottles.

6.4.10.4 Store the blanks and the samples, collected at a given site (sample set), together in a protected area known to be free from contamination. A sample set is defined as all the samples collected at a given site (i.e., at a water treatment plant, duplicate raw source water, duplicate finished water and the duplicate sample blanks comprise the sample set).

6.5 When samples are collected and stored under these conditions, no measurable loss of trihalomethanes has been detected over extended periods of time (7). It is recommended that the samples be analyzed within 14 days of collection.

#### 7. Extraction and Analysis.

7.1 Remove the plungers from two 10-ml syringes and attach a closed syringe valve to each.

7.2 Open the sample bottle<sup>c</sup> (or standard) and carefully pour the sample into one of the syringe barrels until it overflows. Replace the plunger and compress the sample. Open the syringe valve and vent any residue air while adjusting the sample volume to 10.0 ml. Close the valve.

7.3 Fill the second syringe in an identical manner from the same sample bottle. This syringe is reserved for a replicate analysis (see 8.3 and 8.4).

7.4 Pipette 2.0 ml of extraction solvent into a clean extraction flask.

7.5 Carefully inject the contents of the syringe into the extraction flask.

7.6 Seal with a Teflon faced septum.

7.7 Shake vigorously for 1 minute.

7.8 Let stand until the phases separate (60 seconds).

7.8.1 If the phases do not separate on standing then centrifugation can be used to facilitate separation.

7.9 Analyze the sample by injecting 3.0  $\mu$ l (solvent flush technique, (8)) of the upper (organic) phase into the gas chromatograph.

#### 8. Analytical Quality Control.

8.1 A 2  $\mu$ g/l quality check standard (See 5.10) should be extracted and analyzed each day before any samples are analyzed. Instrument status checks

<sup>c</sup> If for any reason the chemical reducing agent has not been added to the sample, then it must be added just prior to analyses at the rate of 2.5 to 3 mg/40 ml or by adding 1 mg directly to the sample in the extraction flask.

and lower limit of detection estimations based upon response factor calculations at 5 times the noise level are obtained from these data. In addition, the data obtained from the quality check standard can be used to estimate the concentration of the unknowns. From this information the appropriate standards can be determined.

8.2 Analyze the sample blank and the raw source water to monitor for potential interferences as described in Sections 3.1, 3.2, and 3.3.

8.3 Spiked samples.

8.3.1 For those laboratories analyzing more than 10 samples a day, each 10th sample analyzed should be a laboratory-generated spike which closely duplicates the average finished drinking water in trihalomethane composition and concentration. Prepare the spiked sample in organic-free water as described in section 5.9.

8.3.2 In those laboratories analyzing less than 10 samples daily, each time the analysis is performed, analyze at least one laboratory generated spike sample which closely duplicates the average finished drinking water in trihalomethane composition and concentration. Prepare the spiked sample in organic-free water as described in section 5.9.

8.3.3 Maintain an up-to-date log on the accuracy and precision data collected in Sections 8.3 and 8.4. If results are significantly different than those cited in Section 10.1, the analyst should check out the entire analysis scheme to determine why the laboratory's precision and accuracy limits are greater.

8.4 Randomly select and analyze 10% of all samples in duplicate.

8.5 Analyze all samples in duplicate which appear to deviate more than 30% from any established norm.

8.6 Quarterly, spike an EMSL-Cincinnati trihalomethane quality control sample into organic-free water and analyze.

8.6.1 The results of the EMSL trihalomethane quality control sample should agree within 20% of the true value for each trihalomethane. If they do not, the analyst must check each step in the standard generation procedure to solve the problem.

8.7 It is important that the analyst be aware of the linear response characteristics of the electron capture system that is utilized. Calibration curves should be generated and rechecked quarterly for each trihalomethane over the concentration range encountered in the samples in order to confirm the linear response range of the system. Quantitative data cannot be calculated from non-linear

responses. Whenever non-linear responses are noted, the analyst must dilute the sample for reanalysis.

8.8 Maintain a record of the retention times for each trihalomethane using data gathered from spiked samples and standards.

8.8.1 Daily calculate the average retention time for each trihalomethane and the variance encountered for the analyses.

8.8.2 If individual trihalomethane retention time varies by more than 10% over an eight hour period or does not fall within 10% of an established norm, the system is "out of control." The source of retention data variation must be corrected before acceptable data can be generated.

### 9. Calculations.

9.1 Locate each trihalomethane in the sample chromatogram by comparing the retention time of the suspect peak to the data gathered in 8.8.1. The retention time of the suspect peak must fall within the limits established in 8.8.1 for a single column identification.

9.2 Calculate the concentration of each trihalomethane by comparing the peak heights or peak areas of the samples to those of the standards. Round off the data to the nearest  $\mu\text{g/l}$  or two significant figures.

Concentration,  $\mu\text{g/l}$  = sample peak height / standard peak height  $\times$  standard concentration,  $\mu\text{g/l}$ .

9.3 Calculate the total trihalomethane concentration (TTHM) by summing the 4 individual trihalomethane concentrations in  $\mu\text{g/l}$ :  
 $\text{TTHM } (\mu\text{g/l}) = (\text{conc. CHCl}_3) + (\text{conc. CHBrCl}_2) + (\text{conc. CHBr}_2\text{Cl}) + (\text{conc. CHBr}_3)$

9.4 Calculate the limit of detection (LOD) for each trihalomethane not detected using the following criteria:

$$\text{LOD } (\mu\text{g/l}) = \left( \frac{(\text{AXATT})}{(\text{BXATT})} \right) \times (2 \mu\text{g/l})$$

Where:

B = peak height (mm) of 2  $\mu\text{g/l}$  quality check standard

A = 5 times the noise level in mm at the exact retention time of the trihalomethane or the base line displacement in mm from theoretical zero at the exact retention time for the trihalomethane.

ATT = attenuation factor.

9.5 Report the results obtained from the lower limit of detection estimates along with the data for the samples.

### 10. Precision and Accuracy

10.1 Single lab precision and accuracy. The data in Table II were generated by spiking organic-free water with trihalomethanes as described in 5.9. The mixtures were analyzed by the analyst as true unknowns.

Table 1.—Retention Times for Trihalomethanes

Trihalomethane	Retention time minutes		
	Column A	Column B	Column C
Chloroform.....	1.0	1.3	4.9
Bromodichloromethane.....	1.5	2.5	11.0
Chlorodibromomethane.....	2.6	5.6	23.1
(Dibromochloromethane) bromoform.....	5.5	10.9	39.4

<sup>a</sup> On this column, trichloroethylene, a common raw source water contaminate, coelutes with bromodichloromethane.

Table II.—Single Laboratory Accuracy and Precision

Compound:	Dose level $\mu\text{g/l}$	Number of samples	Mean $\mu\text{g/l}$	Precision relative standard deviation, percent	Accuracy percent recovery
CHCl <sub>3</sub> .....	9.1	5	10	11	110
CHCl <sub>3</sub> .....	69	3	73	5.3	106
CHBrCl <sub>2</sub> .....	1.2	5	1.3	9.8	108
CHBrCl <sub>2</sub> .....	12	2	15	1.4	125
CHBr <sub>2</sub> Cl.....	2.7	5	2.0	17	74
CHBr <sub>2</sub> Cl.....	17	3	16	9.9	94
CHBr <sub>3</sub> .....	2.9	5	2.2	10	76
CHBr <sub>3</sub> .....	14	3	16	12	114

### References

- Mieure, J. P., "A Rapid and Sensitive Method for Determining Volatile Organohalides in Water," *Journal AWWA*, 69, 60, 1977.
- Reding, R., et al. "THM's in Drinking Water: Analysis by LLE and Comparison to Purge and Trap", *Organics Analysis in Water and Wastewater*, STP 686 ASTM, 1979.
- "Handbook for Analytical Quality Control in Water and Waste water Laboratories," Analytical Quality Control Laboratory, National Environmental Research Center, Cincinnati, Ohio, June 1972.
- Budde, W. L., J. W. Eichelberger, "Organic Analysis Using Gas Chromatography-Mass Spectrometry," *Ann Arbor Science*, Ann Arbor, Michigan, 1979.
- "The Analysis of Trihalomethanes in Finished Water by the Purge and Trap Method," *Environmental Monitoring and Support Laboratory*, Environmental Research Center, Cincinnati, Ohio, 45268, May 15, 1979.
- Richard J. J.; G. A. Junk, "Liquid Extraction for Rapid Determination of Halomethanes in Water," *Journal AWWA*, 69, 62, January 1977.
- Brass, H. J., et al., "National Organic Monitoring Survey: Sampling and Purgeable Organic Compounds, Drinking Water Quality Through Source Protection," R. B. Pojasek, Editor, Ann Arbor Science, p. 398, 1977.
- White, L. D., et al. "Convenient Optimized Method for the Analysis of Selected Solvent Vapors in Industrial Atmosphere," *AIHA Journal*, Vol. 31, p. 225, 1970.
- Kopfler, F. C., et al. "GC/MS Determination of Volatiles for the National Organics Reconnaissance Survey (NORS) or Drinking Water, Identification and Analysis of Organic Pollutants in Water," L. H. Keith, Editor, Ann Arbor Science, p. 87, 1976.

BILLING CODE 6560-01-M

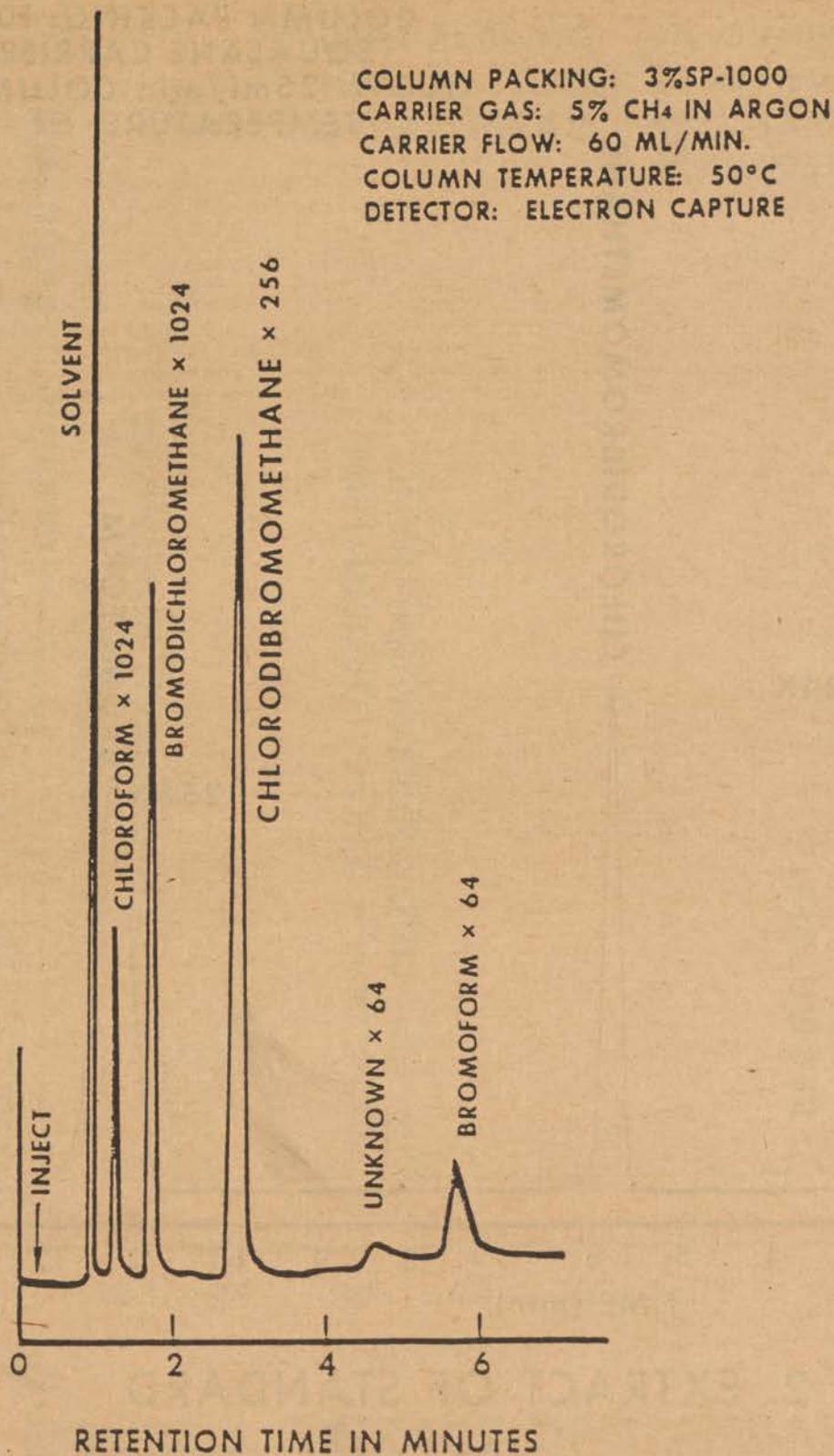


FIGURE 1. FINISHED WATER EXTRACT

COLUMN PACKING: 10%  
SQUALANE CARRIER  
FLOW: 25ml/min COLUMN  
TEMPERATURE: 67

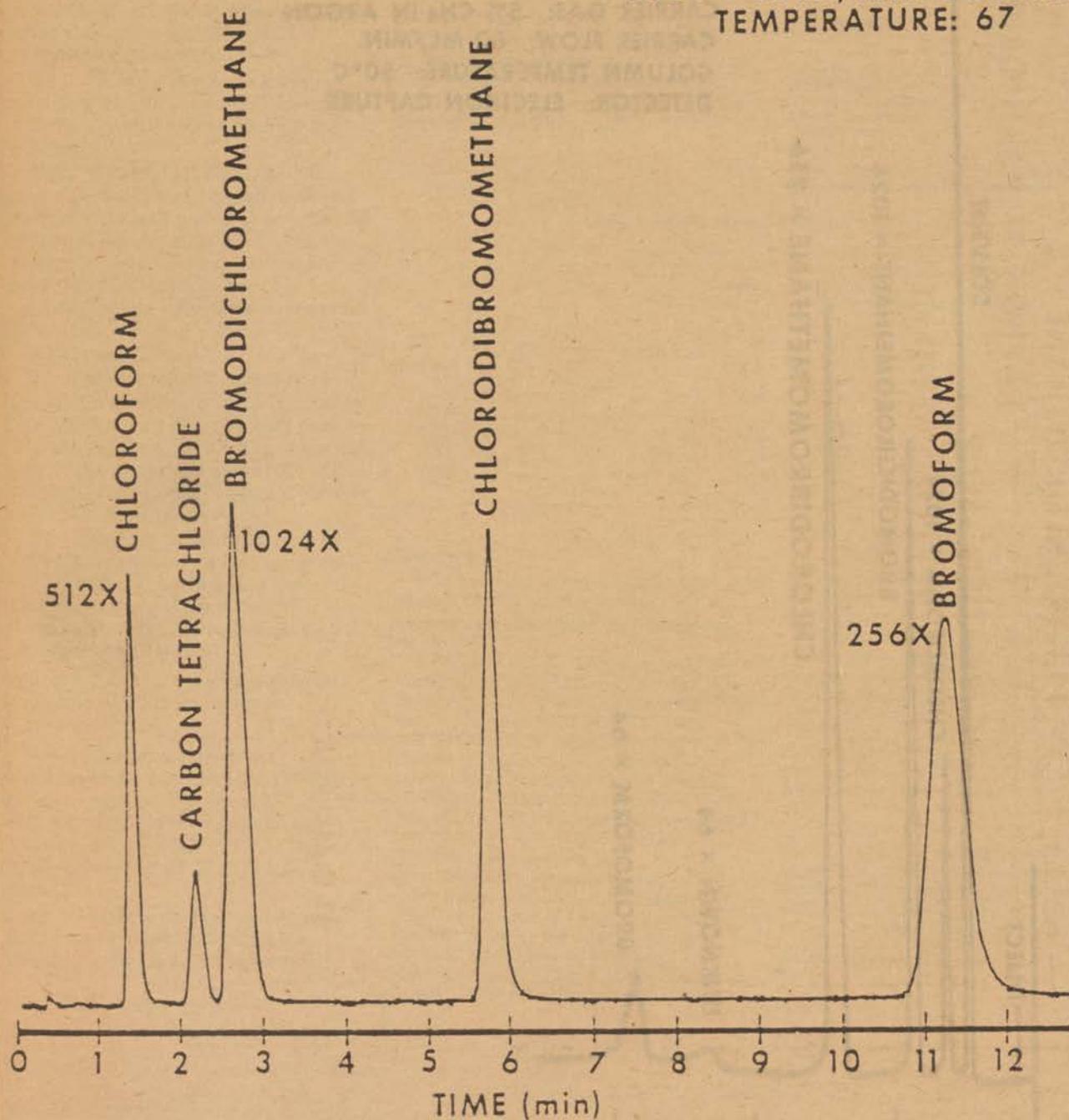


FIGURE 2. EXTRACT OF STANDARD

COLUMN PACKING: 6% OV-11+4% SP-2100  
CARRIER FLOW: 25 ml/min  
TEMPERATURE PROGRAM: 45°C-12 MINUTES  
1°/MINUTE TO 70°C

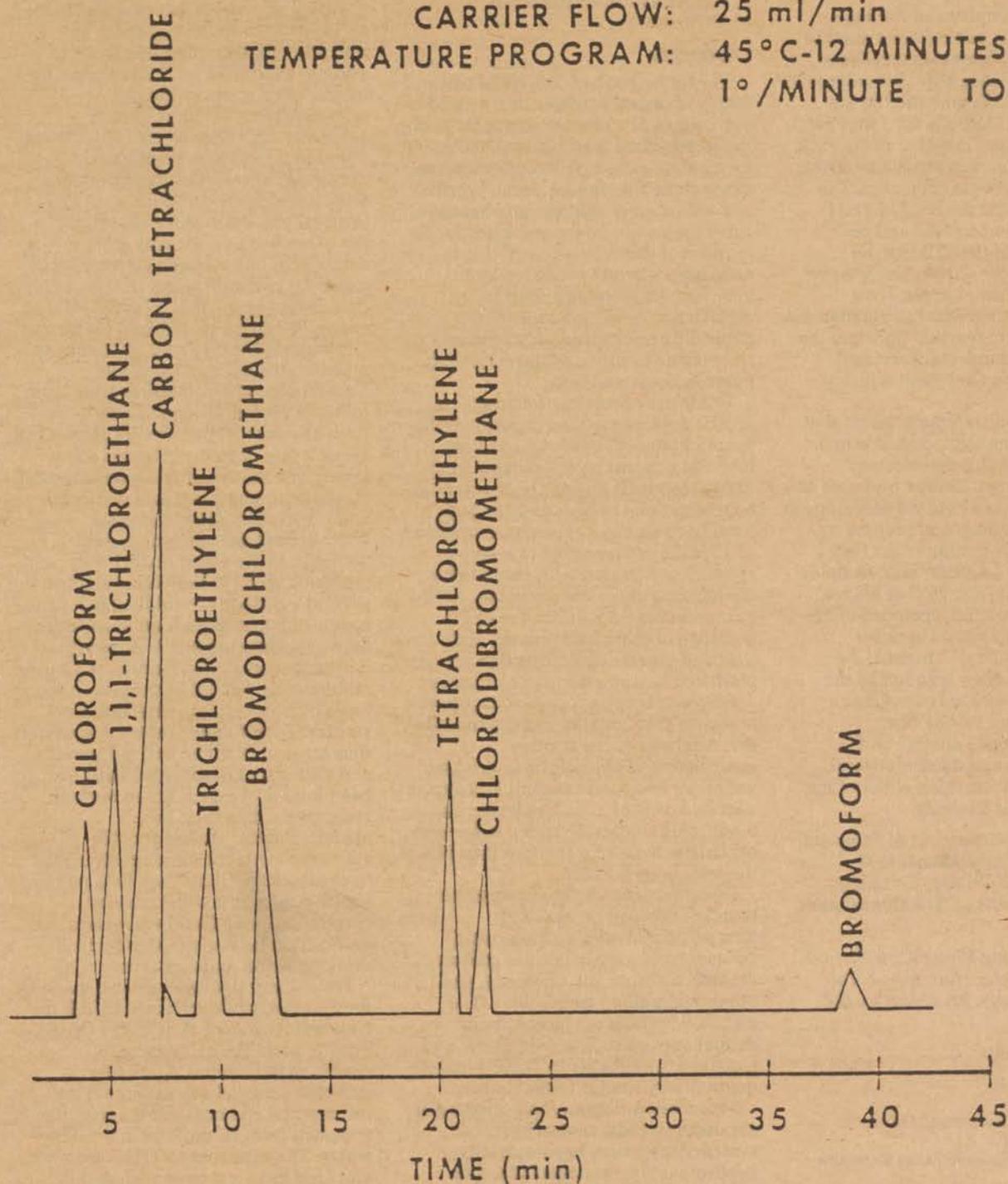


FIGURE 3. EXTRACT OF STANDARD

### Part III—Determination of Maximum Total Trihalomethane Potential (MTP)

The water sample used for this determination is taken from a point in the distribution system that reflects maximum residence time. Procedures for sample collection and handling are given in EMSL Methods 501.1 and 501.2. No reducing agent is added to "quench" the chemical reaction producing THMs at the time of sample collection. The intent is to permit the level of THM precursors to be depleted and the concentration of the THMs to be maximized for the supply being tested.

Four experimental parameters affecting maximum THM production are pH, temperature, reaction time and the presence of a disinfectant residual. These parameters are dealt with as follows:

Measure the disinfectant residual at the selected sampling point. Proceed only if a measurable disinfectant residual is present. Collect triplicate 40 ml water samples at the pH prevailing at the time of sampling, and prepare a method blank according to the EMSL methods. Seal and store these samples together for 7 days at 25°C or above. After this time period, open one of the sample containers and check for disinfectant residual. Absence of a disinfectant residual invalidates the sample for further analyses. Once a disinfectant residual has been demonstrated, open another of the sealed samples and determine total THM concentration using either of the EMSL analytical methods.

#### Attachment 7.—Statement of Basis and Purpose for an Amendment to the National Interim Primary Drinking Water Regulations on Trihalomethanes, August 1979

*Office of Drinking Water Criteria and Standards Division, Environmental Protection Agency, Washington, D.C. 20460.*

#### Table of Contents

- I. Summary
- II. Introduction
- III. The Role of Chlorine and Other Disinfectants
- IV. Sources of Trihalomethanes Exposure
- V. Metabolism
- VI. Acute and Chronic Health Effects in Animals
  - A. Hepatotoxicity
  - B. Nephrotoxicity
  - C. Central Nervous System
  - D. Teratogenicity
  - E. Mutagenicity
  - F. Carcinogenicity
- VII. Human Health Effects
  - A. NAS Principles of Toxicological Evaluation
  - B. Epidemiologic Studies

- VIII. Mechanisms of Toxicity
- IX. Risk Assessment
- X. Maximum Contaminant Levels
- XI. References

#### I. Summary

The trihalomethanes (THMs) are a family of organic compounds, named as derivatives of methane, where three of the four hydrogen atoms are substituted by a halogen atom. Although halogens can include fluorine, chlorine, bromine and iodine, only chlorine and bromine substituents are now considered for the purpose of this regulation. THMs in drinking water are produced by the action of the chlorine added for disinfection or oxidation, with the naturally occurring organic precursors (e.g., humic or fulvic acids) commonly found in source waters.

THMs are commonly found in drinking water supplies throughout the United States. Chloroform has been found at concentrations ranging from 0.001–0.540 mg/l and (TTHM) potential concentrations as high as 0.784 mg/l have been detected. The concentrations of TTHM increase when raw water supplies are treated with chlorine for disinfection and other purposes. TTHM concentrations are indicative of the presence of other halogenated and oxidized organic chemicals that are produced in water during chlorination.

People are also exposed to chloroform in the air they breathe and the food they eat. Analyses of the relative contribution of chloroform in drinking water, air and food exposures assumed various levels of exposure based on monitoring studies. Drinking water may contribute from zero to more than 90% of the total body burden.

Chloroform has been shown to be rapidly absorbed on oral and intraperitoneal administration and subsequently metabolized to carbon dioxide, chloride ion, phosgene, and other unidentified metabolites. The metabolic profile of chloroform in animal species such as mice, rats, and monkeys is indicated in Table 4 and is qualitatively similar to that in man.

Mammalian responses to chloroform exposure include: central nervous system depression, hepatotoxicity, nephrotoxicity, teratogenicity, and carcinogenicity. These responses are discernible in mammals after oral and inhalation exposures to high levels of chloroform ranging from 30–350 mg/kg; the intensity of response is dependent upon the dose. Although less toxicological information is available for the brominated THMs, mutagenicity and carcinogenicity have been detected in some test systems. Physiological chemical activity should be greater for

the brominated THMs than for chloroform.

Although short-term toxic responses to THMs in drinking water are not documented, the potential effects of chronic exposures to THMs should be a matter of concern. Prolonged administration of chloroform at relatively high dose levels (100–138 mg/kg) to rats and mice, manifested oncogenic effects. Oncogenic effects were not observed at the lowest dose level (17 mg/kg) in three experiments. Since methods do not now exist to establish a threshold no effect level of exposure to carcinogens, the preceding data do not imply that a "safe" level of exposure can be established for humans.

Human epidemiological evidence is inconclusive, although positive correlations with some sites have been found in several studies. There have been 18 retrospective studies shown in Table 7 that have investigated some aspect of a relationship between cancer mortality or morbidity and drinking water variables. Due to various limitations in the epidemiological methods, in the water quality data, and problems with the individual studies, the present evidence cannot lead to a firm conclusion that there is an association between contaminants in drinking water and cancer mortality/morbidity. Causal relationships cannot be proven on the basis of results from epidemiological studies. The evidence from these studies thus far is incomplete and the trends and patterns of association have not been fully developed. When viewed collectively, however, the epidemiological studies provide sufficient evidence for maintaining the hypotheses that there may be a potential health risk, and that the positive correlations may be reflecting a causal association between constituents of drinking water and cancer mortality.

Preliminary risk assessments made by the Science Advisory Board (SAB), the National Academy of Sciences (NAS), Tardiff, and EPA's Carcinogen Assessment Group (CAG) using different models have estimated the incremental risks associated with the exposure from chloroform in drinking water. The exposure to THMs from air and food have not been included in these computations. The risk estimates associated with the MCL at the 0.10 mg/l level are essentially the same from the NAS and CAG computations ( $3.4 \times 10^{-4}$  and  $4 \times 10^{-4}$ ) assuming two liters of water at 0.10 mg/l chloroform consumed daily for 70 years.

On the basis of the available toxicological data summarized in the following report, chloroform has been shown to be a carcinogen in rodents

(mice and rats) at high dose levels. Since its metabolic pattern in animals is qualitatively similar to that in man, it should be suspected of being a human carcinogen. Epidemiological studies also suggest a human risk. Therefore, because a potential human health risk does exist, levels of chloroform in drinking water should be reduced as much as is technologically and economically feasible using methods that will not compromise protection from waterborne infectious disease transmission.

Although documentation of their toxicity is not so well established, other THMs should be suspected of posing similar risks. Because the treatment process that can reduce drinking water levels of chloroform have about the same effectiveness in reducing levels of the other THMs, the proposed regulation is addressed to these substances, as well.

## II. Introduction

The extent and significance of organic chemical contamination of drinking water or drinking water sources first came to public attention in 1972, when a report, "Industrial Pollution of the Lower Mississippi River in Louisiana" was published (EPA, 1972). While this report did not include quantification of the pollutants found, and was directed toward locating industrial discharges responsible for the pollution, the report did include analyses of finished (treated) drinking water and provided evidence of the presence of THMs. Subsequently, a more thorough examination of finished drinking water in the New Orleans area was carried out, using the most sophisticated analytical methods available (EPA, 1974). This latter study confirmed the presence of THMs and many other organic chemicals in finished drinking water, and furthermore it demonstrated that one of them, chloroform, was present in high relative concentrations.

The findings in New Orleans promoted other studies, primarily for the purpose of determining how widespread and serious the organic chemical contamination of drinking water was.

Impetus was added by the passage of the Safe Drinking Water Act (Pub. L. 93-523), which directed the EPA to conduct a comprehensive study of public water supplies and drinking water sources to determine the nature, extent, sources, and means of control of contamination by substances suspected of being carcinogenic. The National Organics Reconnaissance Survey of Halogenated Organics (NORS) (Symons, et al. 1975), or "80 City Study", was aimed primarily at determining the extent of the presence of four THMs, *chloroform*, *bromodichloromethane*, *dibromochloromethane* and *bromoform*, along with carbon tetrachloride and 1,2-dichloroethane, and at determining what effect raw water source and water treatment practices had on the formation of these compounds (Table 1). The presence of THMs in finished drinking water was confirmed, and some trend relating non-volatile total organic carbon (NVTOC) of the raw water and the total trihalomethane (TTHM) was postulated. Chloroform occurred invariably in water which had been chlorinated, while it was absent or present at much lower concentrations in the raw water. Water samples were collected at the treatment plant in winter and iced for shipment but not dechlorinated. Thus, those values might approximate minima for human exposure in the areas selected. Of the various THMs, chloroform was found at the highest concentrations (averaging approximately 75 percent of the TTHM), with progressively less bromodichloromethane, dibromochloromethane and bromoform being detected. In some cases chloroform was found at concentrations greater than 0.300 mg/l; (the highest value found was 0.540 mg/l). Carbon tetrachloride and 1,2-dichloroethane were found at very low concentrations. The concentration of these two components did not increase after chlorination; therefore, it can be assumed that these compounds are not related to the chlorination process.

BILLING CODE 6560-01-M

TABLE I - Analytical results of chloroform, bromoform, bromodichloromethane, and dibromochloromethane and total trihalomethanes in water supplies from NORS and NOMS

(Concentrations in milligrams per liter)

	NORS		NOMS		
		Phase I	Phase II	Phase III	
<u>Chloroform</u>		<u>Dechlorinated Terminal</u>			
Median	0.021	0.027	0.059	0.022	0.044
Mean	-	0.043	0.083	0.035	0.069
Range	NF-0.311	NF-0.271	NF-0.47	NF-0.20	NF-0.540
<u>Bromoform</u>					
Median	0.005	LD	LD	LD	LD
Mean	-	0.003	0.004	0.002	0.004
Range	NF-0.092	NF-0.039	NF-0.280	NF-0.137	NF-0.190
<u>Dibromochloromethane</u>					
Median	0.001	LD	0.004	0.002	0.003
Mean	-	0.008	0.012	0.006	0.011
Range	NF-0.100	NF-0.19	NF-0.290	NF-0.114	NF-0.250
<u>Bromodichloromethane</u>					
Median	0.006	0.010	0.014	0.006	0.011
Mean	-	0.018	0.018	0.009	0.017
Range	NF-0.116	NF-0.183	NF-0.180	NF-0.072	NF-0.125
<u>Total Trihalomethanes</u>					
Median	0.027	0.045	0.087	0.037	0.074
Mean	0.067	0.068	0.117	0.053	0.100
Range	NF-0.482	NF-0.457	NF-0.784	NF-0.295	NF-0.695

NF = not found

LD = less than detection limit

A Joint Federal/State Survey of Organics and Inorganics in 83 Selected Drinking Water Supplies, carried out by EPA's Region V (Chicago) provided additional evidence of the ubiquitous nature of chloroform and other THMs in chlorinated drinking water (EPA, 1975). Two conclusions reached in that study were that raw water relatively free of organic matter results in finished water that is relatively free of chloroform and related halogenated compounds, and that there is a correlation in some instances between the concentrations of chloroform, bromodichloromethane, dibromochloromethane and bromoform in finished water and the amount of organic matter found in raw water.

The National Organics Monitoring Survey (NOMS), directed by § 141.40 of the National Interim Primary Drinking Water Regulations (40 FR 59574, December 24, 1975), was aimed not only at determining the presence of THMs in additional water supplies, but also at determining the seasonal variations in concentration of these substances.

The NOMS sampling included 113 public water systems designated by the Administrator, and also included analyses for approximately 20 specific synthetic organic chemicals deemed to be candidates of particular concern as well as analyses of several surrogate group chemical parameters which are indicators of the total amount of organic contamination. Three phases of this study were completed and the mean, minimum, and maximum values of chloroform and THMs in drinking water are reported in Table 1. Phase I analyses in the NOMS were conducted similarly to the NORS. Phase II analyses were performed after the THM-producing reactions were allowed to run to completion. Phase III analyses were conducted on both dechlorinated samples and on samples that were allowed to run to completion (terminal). Again chloroform was found at the highest concentrations in most cases, however, in a few cases bromoform was found to be the highest concentration of the THMs (0.280 mg/l). The mean concentrations of chloroform were 0.043 mg/l, 0.083 mg/l, 0.035 mg/l, and 0.069 mg/l for Phase I, II, III (dechlorinated) and III (terminal), respectively; the mean concentrations for TTHMs were 0.068 mg/l, 0.117 mg/l, 0.053 mg/l and 0.100 mg/l for Phase I, II, III (dechlorinated) and III (terminal), respectively.

### III. The Role of Chlorine and Other Disinfectants

All available evidence indicates that chlorination of drinking water containing naturally occurring organic chemicals is the major factor in the

formation of halogenated organic chemicals, particularly the THMs in finished drinking water. Chlorinated organic compounds, however, can also be introduced into drinking water from industrial outfalls, urban and rural runoff, rainfall, through polluted air, or from the chlorination in sewage and industrial wastewater.

Several studies in addition to those mentioned above, have demonstrated increased THM concentrations in drinking water. Work by J. J. Rook (1974) in the Netherlands, and the studies by Bellar, Lichtenberg and Kroner (1974), showed that chloroform and other halogenated methanes are formed during the water chlorination process. It should be noted that these findings came as a result of the development and application of more sensitive and refined analytical techniques. Recent work by Rook (1974, 1977) has provided some insight into the organic precursors which might be responsible for the formation of the THMs. Studies by Sontheimer and Kuhn (1977) indicate that the THMs may represent only a portion of the total halogenated products of chlorination of water. Bunn et al. (1975), have demonstrated that hypochlorite in the presence of bromide and iodide ions but not fluoride will react with natural organic matter to produce all ten possible trihalogenated methanes.

It can be concluded from the above studies and others that the THMs occur in chlorinated drinking waters, and that the concentrations of the various THMs are dependent on the type and quality of organic precursor substances, the amount of chlorine used, and the presence of other halogen ions as well as contact time, temperature and pH.

A number of methods are available for reducing levels of THMs in drinking water. These options include modifications of current treatment practices, such as moving the point of chlorination, the use of alternative disinfectants such as chlorine dioxide, chloramines, or ozone, and various methods that will reduce organic precursor concentrations such as use of adsorbents like granular activated carbon (GAC).

Two chemicals often mentioned as alternative disinfectants, chlorine dioxide and ozone, are both well known as effective disinfectants and chemical oxidants, and some history of their practical use in water treatment has been accumulated particularly in Europe, but also in the United States.

Chlorine dioxide is usually prepared at the water plant by the reaction of chlorine (either as gas or as sodium hypochlorite) with sodium chlorite.

Unless an excess of chlorine is used, there will be unreacted sodium chlorite left over from the reaction. When chlorine dioxide reacts with organic matter in the water, one of the reaction products is the chlorite ion. Thus, whenever chlorine dioxide is used to treat water, the presence of chlorite ion in the treated water can be expected.

EPA is studying the health effects of chlorine dioxide in water, utilizing several animal species as well as human volunteers. Studies of the toxicology of chlorine dioxide and chlorite ion in drinking water reveal considerable variations. These compounds have been reported to affect the hematopoietic systems such as oxidative changes in hemoglobins and hemolysis of red blood cells. Other bioeffects observed include gastrointestinal disturbances. The preliminary results indicate species variability in biological manifestations. Cats and African green monkeys appear to lie at the extreme ends of the spectrum from among the species studied; cats are very sensitive to hematopoietic effects whereas monkeys were apparently insensitive even at levels as high as 400 mg/l (Bull, 1979). An upper limit for chlorine dioxide by-product exposure is being considered primarily because of the lack of data concerning the safety of this material, and particularly its decomposition products, at higher concentrations (Musil et al., 1963 and Fridyland and Kagan, 1971). Studies with cats have shown that chlorite, which is oxidant that can cause anemias, has a deleterious effect on red blood cell survival rate at chlorine dioxide concentrations above 10 mg/l. Preliminary studies in a small human population did not demonstrate substantial blood chemistry changes, except possibly in one person known to be deficient in glucose-6-phosphatase dehydrogenase. Lack of sufficient health effects data on human toxicity for ClO<sub>2</sub> and its by-products prevents establishment of an MCL at this time, however, work in progress is expected to provide much additional information within the coming year. In the meantime, EPA recommends that monitoring be conducted when chlorine dioxide is used, and that residual oxidant should not exceed 0.5 mg/l as ClO<sub>2</sub>.

A preliminary study concerning ozonation of 29 organic compounds potentially present in water supply sources indicated the formation of a number of products (Cotruvo, Simmon, Spangord, 1976, 1977). These reaction mixtures were assayed for mutagenic activity employing 1) five strains of *Salmonella typhimurium* (Ames

Salmonella/microsome assay); and 2) mitotic recombination in the yeast *Saccharomyces cerevisiae* D3. After very extensive ozonation in water some of the organic compounds exhibited mutagenic activity in these systems. Similar more recent studies under extreme conditions with chlorine dioxide by-products did not exhibit mutagenic activity (SRI Report).

Combining ammonia with chlorine to form chloramines has been called the chloramine process, chloramination, and combined residual chlorination. The products of this process are monochloramine, dichloramine or trichloramines (nitrogen trichloride) depending on the pH and the chlorine to ammonia ratio. The production of the latter species may contribute to taste and odor problems in the finished water; however, chloramination does not reduce the formation of THMs.

Based on the results of numerous investigations, the comparative disinfectant efficiency of chloramines ranks last when compared to ozone, chlorine dioxide, hypochlorous acid (HOCl), and hypochlorite ion (OCl<sup>-</sup>) (NAS, 1977, 1979). Early studies by Butterfield and Waties (1944, 1946, 1948) demonstrated that chloramines required approximately a 100-fold increase in contact time to inactivate coliform bacteria and enteric pathogens as compared to free available chlorine at pH 9.5. This work was later confirmed by Kabler (1953) and by Clarke et al. (1962).

Results with cysts of *Entamoeba histolytica* and viruses also confirm the decreased effectiveness of chloramines as disinfectants. Studies by Fair, et al. (1947) showed that additional dichloramine is about 60 percent and monochloramine about 22 percent as effective as hypochlorous acid at pH 4.5 against cysts of *E. histolytica*. Kelly and Sanderson (1960) found that chloramines in the concentration of 1 mg/l at 25° C required 3 hours at pH 6, or 6 to 8 hours at pH 10 to achieve 99.7 percent inactivation of polio virus. With 0.5 mg/l free chlorine at pH 7.8, by comparison, inactivation of 99.99 percent of polio virus can be achieved in approximately 15 minutes (Liu and McGowan, 1973). Chloramine treatment finds its widest application in maintenance of chlorine residuals in the distributing systems. The human health effects of consuming water treated with chloramine have not been studied in detail.

Although all of these disinfectants can reduce THM formation, questions have been raised on both their toxicity and the toxicity of their by-products. Studies are underway to clarify these matters,

and could result in the designation of maximum permissible levels for certain disinfectants applied to drinking water.

The use of adsorbents for THM removal has also introduced some unknown factors. Assuming that the adsorption process is effective for its intended purpose, there is the possibility that a breakthrough of some of the adsorbed chemicals may occur, that these substances will be adsorbed and subsequently slough off to produce intermittent contamination, or that bacteria and/or toxins will be added to the water from growth on the adsorbent. All of these potential effects are controllable in practice, and EPA encourages the use of GAC to purify contaminated waters and to control THM precursors.

Thus, THM concentrations should be reduced, but without compromising public health from either increased risk of infectious disease transmission or from the chemicals that are used. Outbreaks of infectious waterborne disease have been noted when chlorination systems have been improperly operated. The alternative control methods outlined previously are effective, and are also being studied for their possible side effects. As soon as data become available, EPA will make specific recommendations regarding their use. At the present time, the best approach to reduce THMs in finished water is to reduce precursors prior to chlorination, such as with GAC. This approach has the benefit of reducing the concentration of many other organic chemicals in the water as well as to the precursors to THM and other chlorinated organics. Thus, once the organic chemical concentrations in the water have been reduced, the chemical demand for applied disinfectant will be reduced. Thus, human exposure to all disinfectant chemicals and their degradation products and by-products will be minimized. This is the intent of the regulation controlling THMs.

#### IV. Sources of Trihalomethane Exposure

McConnell et al. (1975), have reported that chloroform occurs in many common foods and that while some halogenated compounds in food may result from manufacturing, canning and pest control practices, chloroform may be introduced as the result of geochemical processes. Chlorinated compounds are the halogenated species most prevalent in food, but at least one food, Limu Kohu, a seaweed or algae eaten in Hawaii, contains an essential oil which is composed largely of bromoform (Burreson, et al 1975).

Chloroform was widely used as an anesthetic in the past, and, until

recently, was a common ingredient in dentifrices and cough preparations. The Food and Drug Administration has taken action to halt the use of chloroform in drug products, cosmetic products, and food-contact articles (41 FR 145026, April 9, 1976). EPA has issued a notice of "rebuttable presumption against registration" of chloroform-containing pesticides (41 FR 14588, April 6, 1976). Thus, in addition to drinking water, exposure to some or all of the THMs is complicated by other environmental sources, however, exposure from some of these sources is being reduced.

The relative human chloroform exposures can be estimated for three major sources of human exposure: atmosphere, drinking water, and the food supply. The uptake calculations are based on the fluid intake, respiratory volume, and food consumption data for "reference man" as compiled by the International Commission on Radiological Protection. The combined uptake for adults from all three sources was derived by multiplying estimated exposure levels by the estimated annual intakes and combining the results [ODW protocol].

Human uptake of chloroform from air, food and drinking water is given in Table 2. Chloroform and TTHM uptake from drinking water was estimated by multiplying the chloroform and THM concentrations from NOMS data (Table 1) by the average consumption of 2 liters of water per day for the 70 kg adult male, by 365. One hundred percent absorption of the amount of chloroform in drinking water is assumed for these calculations. The total chloroform uptake from water was estimated as a mean value of 64 mg per year. The maximum uptake value may be 394 mg per year.

To determine uptake of chloroform from foods, the concentration of chloroform in each food item in North American diets was multiplied by the average annual consumption of that food item by adults in the United States (NAS, 1977), and the results were combined again; one hundred percent absorption of ingested chloroform was assumed. A calculated maximum value of about 16 mg of chloroform uptake per year from total food and a mean value of 9 mg based on ODW assumptions was obtained.

**Table 2.—Human Uptake of Chloroform and Trihalomethanes from Drinking Water, Food, and Air**

Chemical	Exposure levels mg/year		
	Mean (range)		
	Drinking water	Food	Air <sup>1</sup>
Chloroform.....	64 (0.73-343)	9 (2-15.97)	20 (0.41-204)
Trihalomethanes.....	85 (0.73-572)		

<sup>1</sup> Calculated from data supplied by Strategies and Air Standards Division, Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park. The air samples were collected both from the rural and industrial areas during the years 1974-76. The mean value was derived from the concentrations obtained from urban industrialized areas, the minimum value from the rural area and the maximum value from an urban industrialized area.

The calculation for the uptake of chloroform by humans from ambient air was based upon the assumptions that 63 percent of inhaled chloroform is absorbed, (NAS, 1977); the volume of air inhaled by an average adult is  $8.1 \times 10^6$  liters per year; and 0.02 and 10 ppb (by volume) are the respective minimum and maximum chloroform concentrations in urban air. The minimum and maximum values for the annual uptake of chloroform by an adult were estimated at 0.41 and 204 mg, respectively. Assuming minimum exposures from all sources, the atmosphere contributes 12 percent of the total chloroform, the drinking water contributes 23 percent, and food is most significant (65%). Assuming maximum exposures from all sources, drinking water is the major contributor at 61 percent, with air at 36 percent. Thus, the relative contribution of drinking water to the total body burden of chloroform may range from a moderate to a maximum contributor as the annual exposure from water ranges from nil to 394 mg/year, and from 204 to 0.73 mg/year in ambient air (Table 3).

**Table 3.—Uptake of Chloroform for the Adult Human from Air, Water, and Food**

Source	Adult mg/yr	Percent uptake
<b>Maximum Conditions</b>		
Atmosphere	204	36
Water	343	61
Food supply	16	3
<b>Total</b>	<b>563</b>	<b>100</b>
<b>Minimum Conditions</b>		
Atmosphere	0.41	13
Water	0.73	23
Food supply	2.00	64
<b>Total</b>	<b>3.14</b>	<b>100</b>

Max-Water Min-Air

Atmosphere	0.41	1
Water	343.00	97
Food supply	9.00	2
<b>Total</b>	<b>352.41</b>	<b>100</b>

**B. Metabolism**

Several reports (Brown, et al., 1974; Labigne & Marchand, 1974; Fry et al., 1972; Paul and Rubenstein, 1963; Taylor et al., 1974) have indicated that chloroform is rapidly absorbed on oral and intraperitoneal administration and subsequently metabolized to carbon dioxide and unidentified metabolites in urine. Species variation in the metabolism of chloroform has been summarized in Table 4. It is noteworthy that the mouse, a species which shows greater sensitivity to the oncogenic effect of chloroform (Eschenbrenner & Miller, 1945; Brown et al. 1974) metabolized chloroform extensively to carbon dioxide (80%) and unidentified metabolites (3%) from an oral dose of 60 mg/kg. Rats also metabolize chloroform to carbon dioxide but to a lesser extent (66%). In another report, Paul and Rubinstein (1963) recovered 4 percent carbon dioxide after administering 1484 mg/kg chloroform intraduodenally to rats. The discrepancy in these two results may be dose related.

Dose related differences in the metabolism of compounds are known and have recently been reported for the carcinogen vinyl chloride. Squirrel monkeys, when given 60 mg/kg of

chloroform orally, excreted 97 percent of the dose, with 17 percent as carbon dioxide and 78 percent as chloroform. Fry, et al. (1972), recovered unmetabolized chloroform ranging from 17.8-66.6 percent of a 500 mg dose of chloroform given to human volunteers during an 8 hour time period (equivalent to about 7 mg/kg). Since the metabolism of chemicals is also dependent on age and sex, the widespread variation in the quantitative disposition of chloroform in human subjects may be due to the experimental protocols wherein subjects ranging from 18-50 years of age were used. Individual variability in the non-homogenous human population is a major factor.

Metabolic similarities between carbon tetrachloride and chloroform include the appearance of halide ions in urine and carbon dioxide in breath. A related chemical, carbon tetrachloride, is a common contaminant of the chlorine used in water disinfection. Carbon tetrachloride also is metabolized to chloroform in trace amounts, which may in turn, be biotransformed to carbon dioxide. Both chloroform and carbon tetrachloride are proven animal carcinogens (see below). However, this is mentioned because of possible metabolic production of proximal carcinogens. Toxicity of carbon tetrachloride, however, has been attributed to a free radical (CCl<sub>3</sub>) which is postulated as a metabolic intermediate. Chloroform appears to be metabolized to form phosgene (Krishna, 1979).

**Table 4.—Disposition of Chloroform—Species Variation**

Animal species	Sex	Strain	Dose mg/kg	Metabolism (percent)				References
				CHCl <sub>3</sub>	CO <sub>2</sub>	Urine feces	Total excretion	
Mouse.....	M.....	CBA CF/ LP C57	60 po.....	6	80	3	93	Brown et al (1974).
Rat.....	M.....	Sprague Dawley	60 po.....	20	66	7	93	Brown et al (1974).
Rat.....			1,484 id..	70				Paul & Rubstein (1963).
Rat.....	M.....	Sprague Dawley	4,710 ip..		0.39			
Monkey.....	M.....	Squirrel..	60 po.....	78	17	2	97	Brown et al (1974).

<sup>1</sup> Includes radioactivity in carcass.  
Po = Orally.  
id = intraduodenally.  
ip = intraperitoneal.

Many carcinogens have been reported to form complexes with proteins, DNA and RNA (Miller & Miller, 1966). In the case of chloroform, Ilett et al., (1973) reported covalent bonding of chloroform metabolite(s) to tissue macromolecules

in mice. The covalent bonding increased or decreased when the animals were pretreated with phenobarbital or piperonyl butoxide, agents which stimulate or inhibit the metabolism of foreign compounds by mixed function

oxidase enzymes. This is suggestive of the involvement of chloroform metabolism in these processes. These results may be interpreted to mean that the potency of an ingested chemical will be dependent upon its rate of metabolism to the active form.

Information regarding the metabolism of bromoform and other haloforms is not available. However, the structural similarities of these haloforms with chloroform indicate that they should also be absorbed by the oral and inhalation routes of exposure and then metabolized into carbon dioxide and halide ions. Related halogenated hydrocarbons of the dihalomethane series (e.g., dichloromethane, dibromomethane and bromochloromethane) have been reported (Kubic et al. 1974) to be metabolized to carbon monoxide; the rate of metabolism of dibromomethane was higher than that of the dichloromethane.

#### VI. Acute and Chronic Health Effects in Animals

Mammalian responses to chloroform include effects on: the central nervous system, hepatotoxicity, nephrotoxicity, teratogenicity, and carcinogenicity. Reported oral LD<sub>50</sub> values are as follows: for rats, 300 mg/kg (DHEW, 1978); and for mice, 705 mg/kg (Plaa, et al., 1958).

Jones, et al. (1958), reported the effect of various oral doses of chloroform on mice 72 hours after exposure:

- 35 mg/kg—threshold hepatotoxic effect—minimal midzonal fatty changes
- 70 mg/kg—minimal hepatic central fatty infiltration
- 140 mg/kg—massive hepatic fatty infiltration
- 350 mg/kg—hepatic centrilobular necrosis
- 1,100 mg/kg—minimum lethal dose

Acute effects of exposure to chloroform and bromoform vary among species. Reported lethal doses for chloroform and bromoform are:

Species	Subcutaneous lethal dose	Values in mg/kg
Mouse	LD <sub>50</sub>	704 (Chloroform), 1820 (Bromoform).
Rabbit	LD <sub>50</sub>	800 (Chloroform), 410 (Bromoform).

Data on the acute toxicity of dibromochloromethane and dichlorobromomethane are not available.

##### A. Hepatotoxicity

Plaa, et al. (1968) established a dose-response relationship in mice, measuring parameters indicative of hepatotoxicity. Median effective dose (ED<sub>50</sub>) values of 1.4 mM/kg (166 mg/kg) were found in

mice exposed to chloroform by subcutaneous injection. The inhalation exposure of chloroform by mice for 4 hours at concentrations ranging from 100–800 ppm resulted in fatty infiltration of the liver at all dose levels. These changes were observed at necropsy 1–3 days after exposure.

Like chloroform, bromoform exposure leads to fatty degeneration and centrilobular necrosis of the liver (von Oettingen, 1950). Dibromochloromethane and dichlorobromomethane may bring about similar responses, although no experiments have been reported.

##### B. Nephrotoxicity

Nephrotoxic effects of chloroform were studied by Plaa and Larson (1965). The ED<sub>50</sub> for orally administered chloroform in mice was 178 mg/kg as measured by phenolsulfo-phthalein excretion. Increases in urinary protein and glucose excretion, indices of kidney damage, indicated an ED<sub>50</sub> of 104 mg/kg chloroform. Data concerning the nephrotoxic effect of other THMs are not available.

##### C. Central Nervous System Effects

Chloroform was used extensively as an anesthetic because of its effect on the central nervous system. Lehmann and Hasegawa (1910) reported dizziness and light intoxication during 20-minute exposures to chloroform concentrations of 4300–5100 ppm. Repeated exposures up to six days to concentrations as low as 920 ppm for 7 minutes resulted in symptoms of central nervous system depression (Lehman & Schmidt-Kehn, 1936). Additional important information has been submitted to EPA and is discussed below.

Effects of acute and subchronic chloroform exposure on cholinergic parameters in mouse brain were studied by Vocci, et al., (1977). Male Swiss Webster ICR mice were gavaged with single doses of chloroform (30 and 300 mg/kg) and sacrificed 15 minutes after administration of chloroform. In another experiment, the mice were gavaged with 14 or 90 daily doses of chloroform (3 or 30 mg/kg) and sacrificed 18 hours after the last administration. Neither of the above dosage regimens had any effect on *in vitro* [<sup>3</sup>H] choline uptake in synaptosomes. In another study (ibid) of biosynthesis of acetylcholine in mouse brain, chloroform (30 mg/kg) significantly decreased the [<sup>3</sup>H] acetylcholine synthesis (57% of control). Administration of chloroform (3 mg/kg) for 14 days produced a reduction in [<sup>3</sup>H] acetylcholine (57% of control) (Vocci, Personal Communication, April 1979).

Chloroform, dichlorobromomethane, chlorodibromomethane and bromoform, at concentrations of  $8 \times 10^{-4}$  M did not alter the uptake of norepinephrine or dopamine into brain synaptosomes *in vitro* (Vocci, Personal Communication, April 1979).

##### D. Teratogenicity

Teratogenic responses to oral dosing of animals with chloroform were investigated. Rats and rabbits were administered chloroform at 126 and 50 mg/kg respectively. No significant fetal deformities were observed (Thompson et al. 1973). Inhalation of chloroform by Sprague Dawley rats at 30, 100 and 300 ppm for 7 hours a day, on days 6 through 15 of gestation revealed significant fetal abnormalities including: acaudia, imperforate anus, subcutaneous edema, missing ribs and delayed skull ossification (Schwetz et al. 1974).

In an attempt to explain reproductive failure in laboratory animals, i.e., mice and rabbits, McKinney et al. (1976) conducted a study using CD-1 mice wherein groups of mice were given tap water and purified tap water (passed through a Corning 3508 ORC and a Corning 3508 B demineralizer), respectively. Analysis indicated reduced amounts of chlorinated compounds in the purified water. The study could not relate chloroform and other chlorinated organics in tap water to reproductive failures in laboratory animals, since the concentrations of chlorinated organics in water were lowest in those months that reproductive failure was highest, although there did appear to be small, non-significant differences in this parameter between the highly purified and tap water. In a reevaluation involving the effect of Durham tap water and purified tap water as in the above study, Chernoff (1977) did not find striking differences in the reproductive success of CD-1 mice. No teratogenic studies on haloforms other than chloroform were available.

##### E. Mutagenicity

The THMs (chloroform, bromodichloromethane, dibromochloromethane, dibromochloromethane and bromoform) were assayed *in vitro* for mutagenic activity using strains of *Salmonella typhimurium* (TA 100 & TA 1535). The assays were conducted in desiccators to allow each compound to volatilize so that only the vapor phase came in contact with bacteria on the petri dishes. The activation system was tested and found not to be required for the bromohalometanes since they were positive in the absence of activation. The results obtained were as follows: (a)

Chloroform was not mutagenic in TA 100 with or without activation, nor in TA 1535 without activation; (b) bromodichloromethane was mutagenic in TA 100 without activation, with a doubling dose of approximately 25 microliters; (c) dibromochloromethane was mutagenic in TA 100 without metabolic activation, with a doubling dose of approximately 3.5 microliters; (d) bromoform was mutagenic in TA 100 without metabolic activation, with a doubling dose of approximately 25 microliters, and was also mutagenic in TA 1535 with metabolic activation, with a doubling dose of approximately 100 microliters (Tardiff, 1976). All three compounds demonstrating mutagenic activity did so in a dose-response mode. For certain classes of compounds, except for many chlorinated hydrocarbons (Ames, 1973) the Ames test which utilizes *Salmonella typhimurium* bacteria correlates highly (90 percent) with the *in vivo* carcinogenicity bioassay.

#### F. Carcinogenicity

Prolonged administration of chloroform at relatively high dose levels to animals, specifically mice and rats, manifested oncogenic effects. The investigation conducted by Eschenbrenner and Miller (1945) produced hepatomas in female mice (strain A) given repeated dosages ranging from 0.145 to 2.32 mg of chloroform for a period of only four months. Minimum doses of 593 mg/kg chloroform per day (total of 30 doses) produced tumors in all of the surviving animals.

In a recent bioassay (NCI, 1976) linking chloroform with oncogenicity, rats and mice of both sexes were fed doses of chloroform ranging from 90 to 200 (rats), and 138-477 (mice) mg/kg. In this study, the lowest dose for observed carcinogenic effect (kidney epithelial tumors) in male rats was 100 mg/kg and for mice 138 mg/kg administered to the animals for a total period of 78 weeks. A related halogenated hydrocarbon, carbon tetrachloride, was carcinogenic in Osborne Mendel rats and in B6C3F1 mice at dosages ranging from 57 to 160 mg/kg and 1250 to 2500 mg/kg, respectively. The incidence of hepatocellular tumors formed in these animals at both dose levels almost approached one hundred percent (Table 5). The percent survival in mice treated with chloroform and carbon tetrachloride is depicted in Table 6. Almost all the animals on treatment with carbon tetrachloride died between

91-92 weeks whereas with chloroform treatment at both dose levels, 73 and 46 percent of the animals survived. Miklashevskii et al. (1966) fed chloroform to rats at 0.4 mg/kg apparently for 5 months and detected no histopathological abnormalities after this treatment. A recent study on the carcinogenic effect of chloroform at dose levels of 17 mg/kg/day and 60 mg/kg/day was conducted by Roe (1976), utilizing the rat (Sprague-Dawley), the beagle dog and four strains of mice (ICC Swiss, C57B1, CVA and CF/1). Comparison with the NCI study (1976) indicates that the number of animals and the duration of the experiment were essentially similar; the major differences were the dosages, which were lower than in the NCI study, and the vehicle,

which was toothpaste. The only finding of neoplasia was an excess of tumors of the renal cortex in the male ICI-Swiss mice at a dose level of 60 mg/kg/day. However, animals fed 17 mg/kg/day of chloroform showed no incidence of renal carcinoma.

Table 5.—Comparison of Hepatocellular Carcinoma Incidence in Chloroform and Carbon Tetrachloride-Treated Mice

Animal group	Chloroform	Carbon tetrachloride
Males:		
Controls.....	5/77	5/77
Low Dose.....	18/50	49/49
High Dose.....	44/45	47/48
Females:		
Controls.....	1/80	1/80
Low Dose.....	36/45	40/40
High Dose.....	39/41	43/45

Table 6.—Comparison of Survival of Chloroform and Carbon Tetrachloride-Treated Mice

Animal group	Chloroform			Carbon tetrachloride		
	Initial No.	78 weeks	90 weeks	Initial No.	78 weeks	91-92 weeks
Males:						
Controls.....	77	53	38	77	53	38
Low Dose.....	50	43	37	50	11	0
High Dose.....	50	41	35	50	2	0
Females:						
Controls.....	80	71	65	80	71	65
Low Dose.....	50	43	36	50	10	0
High Dose.....	50	36	11	50	4	1

Some renal tumors were also seen in control animals in a later study. The negative results observed in the dog experiment may be explained on the basis that either the animals were not exposed for a suitable length of time (i.e. duration of life span) or that an insufficient number of animals were tested, or that this species may not have been responsive to the oncogenic effect of chloroform. The negative results of the rat study may be explained on the basis of lack of strain sensitivity. Based on the extrapolation from the NCI study, the dose was too low to produce an effect in so few animals (Cueto, NCI, 1979).

Much less information is available on the carcinogenicity of bromohalomethanes. Preliminary results from the strain A mouse pulmonary tumor induction technique (Theiss et al., 1977) indicated that bromoform produced a positive pulmonary adenoma response while chloroform did not. Other studies (Poirier, et al., 1975) indicated that in several instances brominated compounds exhibited more carcinogenic activity than their chlorinated analogs in the pulmonary adenoma bioassay.

## VII. Human Health Effects

### A. NAS Principles of Toxicological Evaluation

The recent NAS (1977) report entitled "Drinking Water and Health" identified several principles for assessing the irreversible human effects of long and continued low dose exposure to carcinogenic substances.

*Principle 1:* Effects in animals, properly qualified, are applicable to man.

*Principle 2:* Methods do not now exist to establish a threshold for long-term effects of toxic agents.

*Principle 3:* The exposure of experimental animals to toxic agents in high doses is a necessary and valid method of discovering possible carcinogenic hazards in man.

*Principle 4:* Materials should be assessed in terms of human risk, rather than as "safe" or "unsafe".

On the basis of studies in animals and human toxicological data the NAS (1977) has recommended that strict criteria should be applied for establishing exposure limits to chloroform.

The National Institute for Occupational Safety and Health has recommended that the occupational exposure to chloroform should not

exceed 2 ppm determined as time-weighted average exposure for up to a 10 hour work day.

The human health effects as observed in accidental, habitual, and occupational exposures appear to indicate that the effects produced by exposure to chloroform are similar to those found in experimental animals. These include effects on the central nervous system, liver, and kidney.

The symptoms observed (Storms, 1973) in a 14 year old patient following an accidental exposure to an unknown amount of chloroform included cyanosis, difficulty in breathing and unconsciousness. Liver function tests measured by serum enzyme levels four days after ingestion indicated high levels of SGOT, SGPT, and LDH. The authors also noted damage to the cerebellum characterized by an instability of gait and a slight tremor on finger-to-nose testing. The symptoms disappeared in two weeks.

Several cases of habitual chloroform use have also been recorded by Heilbrunn et al. (1945). A case study of interest was a 33 year old male who had habitually inhaled chloroform for 12 years. The subject showed psychiatric and neurological symptoms including restlessness, hallucinations, convulsions, dysarthria, ataxia, and tremors of the tongue and fingers.

Lunt (1953) reported that delayed chloroform poisoning in obstetric patients, anaesthetized with chloroform is characterized by renal dysfunction as indicated by: Albumin, red blood cells, and pus in the urine. Chloroform exposure of humans by inhalation was studied by Lehman and Schmidt-Kehl (1936). Ten different concentrations of chloroform were used and the chloroform concentrations were determined by the alkaline hydrolysis method. Exposure at concentrations of 7 ppm for 7 minutes and at all higher levels up to 3000 ppm caused symptoms of central nervous system depression.

Desalva et al. (1975) studied the effects of chloroform in humans; the subjects were given dentifrice containing 3.4% chloroform and mouthwash with 0.43% chloroform for 1 to 5 years. No hepatotoxic effects were observed at estimated daily ingestion of 0.3 to 0.96 mg/kg chloroform. Reversible hepatotoxic effects were manifested at 23 to 27 mg/kg/day chloroform ingested for 10 years in a study conducted by Wallace (1959).

#### *B. Epidemiologic Studies*

By August 1979, 18 epidemiological studies, and additional unpublished reports discussed possible relationships between cancer mortality and morbidity

and drinking water supplies. The results of the studies are shown in Table 7 in the approximate chronological order of completion. The table shows the statistically significant results of analysis by anatomical site. The statistically significant positive results are denoted by "M" for males and "F" to females and the statistically significant negative results are denoted by "-" before the "M" or "F".

BILLING CODE 6560-01-M

Table 7. Statistically Significant Results of Epidemiological Cancer Studies on Drinking Water and Cancer Sites

No.	Author	Yr.	Oral	Esophagus	Stomach	Intestine (not rectum)	Rectum	Combined G.I. Liver and Gallbladder	Pancreas	Respiratory (not lung)	Lung, trachea, bronchi	Breast	Cervix	Uterus, ovary	Prostate	Bladder	Kidney	Combined Urinary	Lymphatic	Leukemia	Non-Hodgkins Lymphoma	Hodgkins	Thyroid	Brain	Larynx	All Cancer	Study Type
1	Page, H.E.	74					M											M							M	E	
		76					F																				
2	Tarone	75								M																M	E
3	Vasilenko	75				F (studied females only)																				F	E
4	DeKouen	75			F	M																				F	E
5	Harris/Reiches	76		M	M		M							F												M	E
6	Buncher	75			M			F	F																		E
7	Kuzma	77			M																					M	E
8	McCabe	75			(total cancer and total mortality only)																					M	E
9	Centor	78																									E
10	Hogan	79																									E
																											E
11	Salg	77																									E
12	Kruse	77			(studied liver and kidney sites only)																						E
13	Man	77			(Eight sites studied -- no statistically positive associations/geographic and data analysis problems)																						E
14	Alavanja	77																									E
		78																									E
15	Wilkins	78																									E
16	Rafferty	79			(Completed but results not useable) (Females Only)																						E
17	Brenniman	78																									E
18	Tuchill	78																									E
	Tuchill	79																									E

F = Fretting

C = Case-Control

R = Retrospective

Five of the studies were published through August 1979. All of the studies were retrospective in design; sixteen were correlation studies, and four used a case-control approach. Four studies utilized cancer morbidity or incidence rather than mortality as a measure of disease frequency. The studies vary in sample size, cancer sites considered, factors selected as possible explanatory variables, parameters selected as indicators of water quality, and in the statistical techniques used for analysis, so caution must be used in comparing the results of one study with the results of another study.

There are several problems which make the results difficult to interpret: (1) There is limited water quality data on organics and other contaminants in the finished drinking water, and the data which exist cover less than five years; and (2) the water quality data are often from geographic areas other than those (usually counties) reporting cancer mortality data.

The water quality data are recent, and it is not known to what extent they reflect past exposure to THMs. This is important, since the latent period for most types of cancer is measured in decades. Comparison of the various study results is difficult also because of the different approaches used.

In general, retrospective epidemiological studies are a useful methodological tool in hypothesis generation. The results from these studies, when viewed collectively, can provide some insight into the postulation of causal relationships which then need to be tested further, using epidemiological designs such as case-control or cohort studies, for documentation.

When the evidence from all studies is weighed, an emphasis can be placed not only on the statistical significance of single correlation coefficients but on their consistency and patterns. When more than one independent study shows positive associations for *site-specific* cancers, then the association may not be due to chance alone. When the association is verified by consistent results across all four sex-race groups (white male, non-white male, white female, non-white female), the association is more likely to be used due to the variable considered and the evidence should be viewed more seriously. The studies done so far suggest the appropriateness of concern.

There is much evidence (both epidemiological and experimental) that most human cancers result from a combination of causes (Weisburger, 1977). Etiologic factors (e.g. smoking as a cause of lung cancer, soot as a cause of

scrotal cancer in chimney sweeps) that result in increased relative risk greater than 5, were among the first to be discovered. The etiologic factors associated with cancers of gastrointestinal and urinary tract are more difficult to isolate from epidemiological studies because of the lower incidence and mortality rates, the interaction of environmental causes, and site-specific differences. The increased relative risk of populations exposed to most factors suspected of being associated with gastrointestinal and urinary cancers are less than three. Effects as small as, or smaller than these, are difficult to detect or quantify.

A number of the epidemiologic studies relating "water quality" to cancer did not define the water quality parameter by chemical constituents but instead compared cancers in persons who used water from different sources. Among the first of these was an investigation by Page, Talbot, and Harris (1974). The study considered Louisiana parish (county) cancer mortality rates for 1950-69, for total cancers and various selected cancer sites, and related these to the percentage of the parish populations drinking water from the Mississippi River, which is known to be contaminated by many organic chemicals (Laseter, 1972). The variables controlled were the rural-urban character of the parish, median income, population density, and proportion of population employed in the petroleum, chemical, and mining industries. An unweighted regression analysis showed a positive correlation between drinking water and total cancer (excluding cancer of the lung, urinary tract, GI tract, and liver), and then separately for cancer of the gastrointestinal organs and lung cancer. These investigations suggested an association between cancer mortality rates and use of drinking water from the Mississippi.

Meinhardt, et al. (1975), commenting on the Page-Harris report, looked at the cancer mortality gradient by apparent "dose" of river water and concluded that there was a random distribution of high and low cancer mortality rates among the river water consumers along the lengths of the Missouri and Mississippi River systems.

Subsequent reports by Page and Harris (1975, 1976) on the "Relation Between Cancer Mortality and Drinking Water in Louisiana" utilized explanatory variables and cancer sites similar to those in the first study; relationships for all four sex-race groups were considered. Positive regression coefficients for the water variable that were found statistically significant were:

Total cancer sites: WM, NWM, NWF.  
All other than lung: WM.  
Urinary Tract: WM, NWF.  
Gastrointestinal: WM, NWM, WF, NWF.

Tarone and Gart (1975) reviewed the Page-Harris work and included an additional variable, elevation above sea level. By using a weighted regression analysis for four race-sex groups, statistically significant, positive correlations were found between the water variable and total cancer and lung cancer mortality for white males (WM), non-white males (NWM), and non-white females (NWF). The correlations were not statistically significant for white females (WF) for the same sites. Thus, there was a lack of consistency across the four sex-race groups for the aforementioned cancer sites.

Vasilenko and Magno (1975) conducted an ecological study in New Jersey and determined the relation between water source and age-adjusted cancer mortality from lung, stomach and urinary tract cancer of white females. Water quality was estimated from the ratio of the number of households served by public systems and private water companies to the number served by individual wells. Positive associations were found for lung and stomach cancer.

DeRouen and Diem (1975) also reviewed the relationship of cancer mortality in Louisiana and the Mississippi River as the drinking water source looking at ethnic variables as a possible confounding factor. By dividing Louisiana into a northern and southern section, they were able to mimic an ethnic division of the population. Many of the variables (urban-rural characteristics, median income, employment characteristics, and elevation above sea level) included in the previous studies were omitted. The water variable was handled differently by the investigators. Population groups were dichotomized into those who obtained none of the water from the Mississippi River, and those who obtained some or all from the river. The results show a positive relationship between cancer mortality and drinking water, for gastrointestinal cancer. The cancer mortality rates for southern parishes of Louisiana whose source of drinking water is the Mississippi River are higher than in the southern parishes whose source of drinking water is not the Mississippi River for the following:

Stomach: NWF.  
Rectum: WM.  
Large Intestine: WF, NWF.  
Cervix: NWF.  
Lung: NWF.  
Total Cancer: NWF.

The cancer mortality rates tend to be higher for the southern parishes with river water use than northern for river water parishes for cancer of the urinary tract, gastrointestinal tract, and the lung.

In another set of analyses and comments, DeRouen and Diem (1975) discuss the problems associated with interpretation of regression coefficients as they relate to the Page and Harris Report, particularly the problem of making interferences from correlational studies. They concluded that inconsistencies such as the failure to see the same relationships for all sex-race groups reduces the credibility of the hypothesis of a causal relationship between water source and cancer risk.

An analysis was done by McCabe (1975) of EPA using the 50 (of a total of 80) NORS cities with a 1950 population greater than 25,000 and 70 percent or more of the city's population receiving water comparable to that sampled by EPA. McCabe showed a statistically significant correlation between the chloroform concentrations in the drinking water and the cancer mortality rate by city for all cancers combined.

In a second analysis by McCabe using water quality data from Region V, correlations between chloroform and TTHMs and total cancer mortality were not positive. When the same correlations were done using Region V plus NORS data for chloroform and total trihalogenated methane concentration levels, a positive statistically significant result was obtained.

Several epidemiological studies have been conducted in the Ohio River area. Buncher (1975) conducted a study of 88 counties (in Ohio, bordering the Ohio River) of which 14 used the Ohio River as a drinking water source. Buncher reports no significant relationship with drinking water from the Ohio River and the higher cancer mortality rates. There was a weak positive correlation between the chloroform concentration in 23 cities and the cancer mortality rate for all cancer sites in white males. Similar results were found in 77 cities (59 with surface water supplies) between chloroform concentrations and pancreatic cancer mortality in white females. For cities that accounted for more than 70 percent of the county population, there was a significant correlation between chloroform concentration and bladder cancer mortality rates for both white males and white females.

As a follow up on the Buncher study, a study by Kuzma, et al. (1977), considered the 88 Ohio counties, classified as either ground water or surface water counties based on the source of the drinking water used by a

majority of the county residents. A two-stage analysis was performed and no statistically significant results were shown between the drinking water from the Ohio River and cancer mortality rates. However, rates for stomach, bladder, and total cancers were higher for white males in counties served by surface water supplies (probably chlorinated) than in counties served by ground water supplies (probably not chlorinated).

Reiches, et al. (1976), re-examined the Ohio data using a different methodology. Correlations between the surface drinking water variable and cancer mortality rates for stomach cancer and total cancers for both white males and females were statistically significant. The correlations between the drinking water variable and cancer mortality rates of the pancreas, bladder, esophagus, gastrointestinal tract, and urinary organs were significant for white males only.

Although several studies defined the water quality parameter by chlorination or levels of chloroform, only one study has considered the relationships of cancer with all THMs, both collectively and separately. Cantor et al. (1978) studied the correlation of cancer mortality at sixteen anatomical sites with the presence of concentration levels for each THM and TTHM in drinking water for whites. Counties were grouped according to the percentage of the county population served by the sampled water supply. In both sexes, there was a positive dose-response gradient of increasing correlation between trihalomethane concentration and bladder cancer. The correlation was stronger for bromoform than with chloroform. There was a negative correlation in white females of stomach cancer with total THM levels. Kidney cancer in white males showed a positive correlation with chloroform levels. Lung cancer in white females showed a positive correlation with THM levels. Among white males non-Hodgkins' lymphoma showed a positive correlation with bromoform. A positive dose-response was observed between brain cancer mortality (in both sexes) with increasing use of water containing chloroform, but the associations were not strong.

Alavanja, et al. (1976) conducted a retrospective, case-control study of female cancer mortality and its relationship to drinking water chlorination in seven selected New York counties. A statistically significant association was found between a region being served from a chlorinated drinking water supply and combined

gastrointestinal and urinary tract cancer mortality rates in that region. There was also a higher mortality for the summed gastrointestinal and urinary cancer in urban areas served by chlorinated surface or ground drinking water supplies than in urban areas served by nonchlorinated supplies, however, the results should be viewed cautiously due to the small numbers in the sample.

Alavanja (1977) expanded this study and included gastrointestinal and urinary cancer deaths. Results showed that males living in the chlorinated water areas of three counties and females living in the chlorinated water areas of two counties were at greater risk of gastrointestinal and urinary tract cancer mortality than individuals living in the non-chlorinated areas. Alavanja (1978) did a second study (shown on Table 7), which expanded the first to nineteen counties in New York and several specific cancer sites. Statistically significant positive associations were found for males and lung cancer and for females and pancreatic cancer. Statistically significant positive associations were found for both males and females and cancer of the large intestine, combined gastrointestinal, and all cancers.

Kruse (1977) conducted a retrospective, case control study of white males and females in Washington County, Maryland. The relationship between mortality and morbidity from liver (including biliary passages) and kidney cancer in areas supplied by chlorinated public water supplies was analyzed. While there was a higher incidence of liver cancer among the exposed group; i.e., the group which consumed chlorinated drinking water, the correlations were not statistically significant. It should be noted that the sample size was small and that fewer than 50 cases each of liver cancer and kidney cancer were counted.

Salg (1977) also conducted a retrospective study of various cancer mortality rates and drinking water from a variety of sources and receiving different types of treatment in 348 counties in seven states in the Ohio River Valley Basin. She compared mortality rates for white and non-white males and females using weighted regression analyses, surface water usage showed weak but statistically significant associations between chlorinated water supplies (regardless of source) and the following cancers: For white males—esophagus, respiratory organs, large intestine, rectum, bladder, other urinary organs and lymphosarcoma and reticulosarcoma; for white females—breast and rectum,

and for non-white females—esophagus and larynx. Rectal cancer showed positive correlations across all race-sex groups. It should be noted that the test of significance utilized for this study was  $p < 0.10$ , which is less stringent than that used in other studies.

Mah, et al. (1977), conducted a retrospective study of the white population in the Los Angeles County area of the relationship between cancer mortality and morbidity and the chlorinated drinking water supply. They did not reveal any trends and showed no significant relationships for either cancer mortality or morbidity. The authors pointed out several methodological problems, including the diluting effect of migration into the area covered by this study.

Hogan, et al. (1979) also utilized the NORS and Region V data sets and applied various statistical procedures to the data in order to determine the effects of using different statistical models. Their results were similar to previous studies showing a positive correlation between rectal-intestinal and bladder cancer mortality rates and chloroform levels in drinking water when weighted regression analysis were applied. However, as the authors pointed out, "the marked extent to which these results were dependent on (1) the weighting scheme adopted in the analysis, (2) the presumed appropriateness of the data, and (3) the characteristics of the statistical model, was also clearly illustrated."

Wilkins (1978) conducted a case-control study in Washington County, Maryland and investigated the association between liver, kidney and bladder cancer and chlorinated water source. A positive correlation was found for female liver cancer and male bladder cancer and the chlorinated drinking water source. Due to small numbers of cases the outcome of this study should be viewed with suspicion.

Rafferty (1979) studied associations between drinking water quality in North Carolina communities and cancer mortality rates. The drinking water supplies were characterized by domestic and/or industrial contribution. No significant positive association were found.

Tuthill and Moore (1978) investigated the association between cancer mortality rates and parameters of water quality for Massachusetts community public water supplies. The average annual chlorine dose was one of the independent water characteristics. Simple correlations showed that the average chlorine dose level in the water was negatively associated with female buccal cancer, and positively associated

with female esophageal and male respiratory cancers. Occupation, population mobility, and other demographic variables were controlled.

In summary, many but not all of the studies have found positive correlations between some characteristics of drinking water and various cancer mortality/morbidity rates. However, these correlations are dependent upon the selection and appropriateness of the data, the weighting scheme and extrapolation in the analysis, and the characteristics of the statistical model. Because of these dependencies the quantitative, causal interpretation of results generated from an indirect or ecological study should be viewed as tenuous for the primary purpose of generating hypotheses and even questionable in most cases.

It is important in the evaluation process to consider the results from other epidemiological studies as they develop hypothesis of potential causal associations between cancer mortality and other agents. For example, the confounding factors of diet, occupation, and smoking all have been suggested as potential causative agents of bladder cancer, Cole (1972). Therefore, any epidemiological study that investigates the possible association between bladder cancer and drinking water should be designed to avoid the problems that result in confounding of the data. None of the studies completed thus far have obtained data on or controlled for diet; several studies have attempted to control for occupational exposure (Page and Harris, 1974 and 1975; Cantor, et al., 1978; Tuthill and Moore, 1978); only the studies by Kruse (1977) and Wilkins (1978) obtained smoking data. Only a few studies considered four sex-race groups (the number of non-whites is too small in some of the geographic areas) and of those studies only a few showed consistent patterns of association of *specific cancer sites*, e.g., Salg (1977)—rectum. Several studies which considered only white populations found positive correlation coefficients for both sexes: Kuzma (1977)—stomach; De Rouen (1975)—intestine, stomach and bladder; Buncher (1975)—bladder; Reiches (1976)—stomach; Cantor (1978)—bladder; Hogan (1979)—intestine and bladder; and Alvanja (1978)—intestine. Only a few studies defined the water quality variable by the chloroform concentrations (McCabe, 1975; Buncher, 1975; Cantor et al., 1977; Hogan et al., 1977; Alvanja, 1978), and by the THM concentrations (Cantor et al. 1977).

Of particular interest are possible correlations of liver and kidney cancer

rates with drinking water, since the animal exposure data indicate that hepatocellular carcinomas and hepatic modular hyperplasias have been observed in B6C3F1 strains of mice after life time exposure to chloroform. Several of the preliminary studies grouped the cancer sites for the anatomical systems, e.g., gastrointestinal and urinary organs, in order to increase the sample size. One of the studies (Cantor, 1978) which considered site-specific cancer mortality showed a positive association between drinking water and cancer of the kidneys in white males. The absence of any positive association between drinking water and liver cancer mortality may be due in part to small sample sizes, very low incidence of the disease, or because the exposure levels of contaminants in trace amounts over a lifetime may be below a no-effect level (Weisburger, 1977). The incremental increase may be too small to measure for statistical significance. On the other hand, many scientists believe that the specific site in which cancer appears in animal tests need not necessarily be the same site in which the cancer is likely to appear in humans.

Thus, the evidence is incomplete and the trends and patterns of association have not been fully developed. As stated previously, a causal relationship cannot be established by correlation studies. When viewed collectively, the epidemiological studies completed thus far provide evidence for maintaining a hypothesis that there may be a health risk and that the positive correlations may be due to an association between some constituents of drinking water and cancer mortality. The animal test data alone provide a firm basis for policy decisionmaking. Additional epidemiological studies may provide evidence regarding the strength of the associations and the possibility of a causal relationship between drinking water and cancer mortality, and thus provide a stronger basis for further regulatory action.

The NAS Epidemiology Subcommittee of the Safe Drinking Water Committee reviewed the first thirteen of the aforementioned eighteen studies. In the report, "Epidemiological Studies of Cancer Frequency and Certain Organic Constituents of Drinking Water—A Review of Recent Literature Published and Unpublished," September 1978, the Committee reached the following conclusions, which are consistent with EPA. Among the group of studies that characterized water quality by actual measurements, the results suggest:

That higher concentrations of THMs in drinking water may be associated with an

increased frequency of cancer of the bladder. The results do not establish causality, and the quantitative estimates of increased or decreased risk are extremely crude. The positive association found for bladder cancer was small and had a large margin of error; not only statistical, but much more importantly, because of the very nature of the studies.

Further research is being conducted with more definitive analytical studies. A large case-control bladder cancer study with 3,000 cases and 6,000 controls is being conducted by the National Cancer Institute (NCI). Three other case-control colon cancer studies are being conducted in Louisiana, Pennsylvania, and Utah. The results of these studies may provide more solid evidence to answer the question of possible associations between water quality and increased incidence of bladder and colon cancer.

#### VIII. Mechanism of Toxicity

Biologic responses upon exposure of mammals to chloroform include effects on the central nervous system resulting in narcosis, hepatotoxicity, nephrotoxicity, teratogenicity and carcinogenicity. Elucidation of the mechanism of toxicity of chloroform and related compounds has been attempted by several researchers.

Scholler (1968) and McLean (1970) observed that phenobarbital pretreatment of rats caused an increase in liver necrosis after administration of chloroform. Later, Brown, et al. (1974) reported that exposure of rats to an atmosphere containing chloroform (0.5%) for 2 hour markedly decreases glutathione (GSH) concentration in the liver when the animals have been pretreated with phenobarbital. In an attempt to further elucidate the role of GSH in chloroform-induced hepatotoxicity, Docks and Krishna (1976) injected chloroform into rats pretreated with microsomal enzyme inducers—phenobarbital, 3-methylcholanthrene, acetone and isopropanol. A dose of chloroform as little as 0.2 mg/kg decreased liver GSH levels and caused centrilobular necrosis within 24 hours in phenobarbital pretreated rats. At a dose of 0.05 ml/kg, chloroform did not decrease liver GSH or cause liver necrosis. When the rats were not pretreated with phenobarbital, a chloroform dose of 0.2 ml/kg caused neither GSH depletion nor necrosis. In this connection, it is interesting to note that cysteine, which is a precursor of GSH and a common amino acid in one's diet, protected the liver from the hepatotoxicity produced by chloroform. The animals were also protected from the hepatotoxic effect by pretreatment

with cystamine, not a precursor of GSH, thus suggestive of a mechanism other than of GSH depletion in the hepatotoxicity of  $\text{CHCl}_3$ .

Earlier reports by Ilett, et al. (1973) suggested the possibility of another mechanism involving the formation of an active metabolite of chloroform responsible for the chloroform-induced hepatotoxicity. This study correlated the renal and hepatic necrosis with covalent binding of chloroform metabolites to tissue macromolecule. Bioactivation of xenobiotics including chloroform, involves mixed function enzymes; the NADPH cytochrome reductase-cytochrome P-450 coupled systems. Sipes, et al. (1972) studied the bioactivation of carbon tetrachloride, chloroform and bromotrichloromethane utilizing  $^{14}\text{C}$ -labeled compounds and rat liver microsomes. The covalent binding of radiolabel to microsomal protein was used as a measure of conversion of the compounds to reactive intermediates. The authors concluded that cytochrome P-450 is the site of bioactivation of these three compounds rather than NADPH cytochrome C reductase.  $\text{CCl}_4$  bioactivation proceeds by cytochrome P-450 dependent reductive pathways, while  $\text{CHCl}_3$  activation, proceeds by cytochrome P-450 dependent oxidative pathways.

The isolation and identification of an active metabolite of chloroform supposedly responsible for toxicity was attempted by Pohl and his co-workers (1977). 2-oxithiazolidine-4-carboxylic acid, an *in vitro* metabolite of chloroform, and presumably formed by the reaction of cysteine and phosgene ( $\text{COCl}_2$ ), was isolated and characterized. When the incubation was conducted in an atmosphere of  $^{18}\text{O}$   $\text{O}_2$ , the trapped  $\text{COCl}_2$  contained  $^{18}\text{O}$ . These findings suggest that C-H bond of  $\text{CHCl}_3$  is oxidized by a cytochrome P-450 monooxygenase to produce trichloromethanol which spontaneously dehydrochlorinates to phosgene. The electrophilic phosgene could react with water to form carbon dioxide, a known metabolite of  $\text{CHCl}_3$  *in vitro* and *in vivo* or with microsomes to yield a covalently bound product. The *in vitro* oxidation of chloroform and its relationship to chloroform toxicity has been further substantiated by the studies wherein deuterated chloroform was used. Pohl and Krishna (1978) reported that  $\text{CDCl}_3$  was metabolized slower than chloroform suggesting that the cleavage of C-H bond of chloroform is the rate determining step in the enzymatic process. The observation that  $\text{CDCl}_3$  is less hepatotoxic than  $\text{CHCl}_3$  indicates that the cleavage of the C-H bond is

also the critical step in the process leading to  $\text{CHCl}_3$  induced hepatotoxicity. The finding that  $\text{CDCl}_3$  depletes less glutathione in the liver of rats than  $\text{CHCl}_3$ , suggests the active metabolite phosgene is responsible for the depletion of glutathione.

In the experiments involving the isolation and characterization of metabolites of chloroform, the evidence for the metabolism of chloroform to phosgene *in vitro*, by the oxidative pathway was present. Recent research has indicated the possibility of formation of phosgene *in vivo*. Pohl, et al. (1979), isolated and characterized 2-oxo-thiazolidine-4-carboxylic acid from the liver of rats pretreated with cysteine carboxylic acid after a dose of chloroform and/or deuterated chloroform. In these experiments, deuterated chloroform yielded less amount of metabolite, confirming once again the specificity of the cytochrome P-450 dependent enzymes in the mediation of oxidative dehalogenation of chloroform and its toxicity.

#### IX. Risk Assessment

The establishment of chloroform as an animal carcinogen, plus the epidemiological data and mutagenesis data on THMs, show that a potential human risk exists from the consumption of THMs, but these data do not quantify the risk. Methods have been developed to estimate the level of risk, based on an assumption that there is no threshold level for the action of a carcinogen. The state-of-the-art at the present time is such that no experimental tools can accurately define the absolute numbers of excess cancer deaths attributable to chloroform in drinking water. Due to the biological variability and a number of assumptions required, each of the risk-estimating procedures leads to a different value. There is wide variation among these estimates and their interpretation.

The EPA Science Advisory Board (SAB) (1975), using the highest levels of chloroform then reported in drinking water by the NORS data (0.300 mg/l) and assuming a maximum daily intake of 4 liters of water for a 70 kg man, attempted to estimate the risk. The estimates were based on the Eschenbrenner and Miller (1945) animal data, which themselves are subject to great variability since the experiments used only 5 animals per sex per dose. Using a linear extrapolation of the animal data over more than 2 orders of magnitude dose from mice to humans at the 0.300 mg/l concentration level, the lifetime incidence for liver tumors in man were estimated to range from 0 to .001 (95% confidence limits) or 0 to 100 ×

$10^{-5}$  in a lifetime. This rate may be compared with the lifetime incidence of  $260 \times 10^{-5}$  for malignancy of liver derived from the data of the Third National Cancer Survey (1976). This estimate would range from zero to approximately 40% of the observed incidence of liver cancer in the United States that may be attributable to exposure to chloroform in drinking water at the 0.300 mg/l level. It should be noted that this value is at the upper limit of the confidence interval and the linear non-threshold dose-effect model allows an estimate of maximal risk where a risk has actually been observed. Most other models would yield lower estimates. The SAB, however, also stated that a more reasonable assumption would yield lower estimates of the risk.

Tardiff (1976) using four different models, calculated the maximum risks from chloroform ingestion via tap water. Using a margin of safety of 5000 applied to the minimum effect animal dose, i.e., the Weil conjecture, the "safe" level was calculated to be 0.2 mg/kg/day. Using the logprobit model and the slope recommended by Mantel and Bryan, the conclusion reached was that at a maximum daily dose of 0.01 mg/kg the risk would be between 0.016 and 0.683 cancers per million exposed population per year. Using the identical data, but with the experimental slope of the dose response curve as found in the mice as opposed to the slope of the one in the previous calculation, the conclusion reached was that a maximum daily dose of 0.01 mg/kg would produce less than one tumor per billion population per lifetime. Using the linear, or one hit model, usually considered to be the most conservative, a risk estimate of between 0.42 and 0.84 cancers per million population per year was calculated to result from a dosage level of 0.01 mg/kg/day. The two step model produced an estimated maximum risk of between 0.267 and 0.283 cancers per million population per year at a dose level of 0.01 mg/kg/day.

In the National Academy of Sciences (1977) report on "Drinking Water and Health," lifetime risks were estimated from the more recent, and much more extensive NCI animal data using a multi-stage model.

For a concentration of chloroform at 1 ug/liter the estimated incremental lifetime cancer risk would fall at approximately  $1.7 \times 10^{-6}$  per microgram per liter at the upper 95% confidence limit, assuming 70 year daily consumption of water at that level. Assuming lifetime exposure at the standard of 0.10 mg/l level in drinking

water the incremental risk would be  $3.4 \times 10^{-4}$  assuming two liters of water at 0.10 mg/l consumed daily for 70 years.

In evaluating the risk estimates, it is important to compare the calculated maximum risk with the current cancer mortality data. Both liver and kidney cancer are rare diseases in the U.S. (< 5 per 100,000 population per year). The standardized mortality rates in the U.S. for white males and females combined are 52.5 per million per year for liver cancer and 29.2 per million per year for kidney carcinoma.

Based on the various risk estimates, Tardiff (1976) calculated that the percent of the annual cancer mortality attributable to chloroform in drinking water could be 1.60% and 1.44% for liver and kidney cancer respectively assuming the maximum exposure levels. Applying these percentages to the actual cancer mortality rates, the number of cancer deaths per year would be 168 from liver carcinoma or 84 from kidney carcinoma; an estimated maximum of 252 cancer deaths per year attributable to chloroform in drinking water.

Reitz, Gehring, and Park (1978) discussed EPA's procedures in estimating risk. They stated that EPA "seriously overestimates the actual potential of chloroform \* \* \* (for) two major reasons." These are: (1) The mechanism through which chloroform exerts its toxicity, and (2) reliance on the NCI bioassay protocols which call for high doses of chloroform, and by not conducting studies at lower doses which usually induce relatively less carcinogenicity, there is a likelihood of ignoring a possible detoxification mechanism which protects test animals until they are overwhelmed by very large doses. They also suggest that an experiment to evaluate the carcinogenicity of chloroform at lower doses must be performed before high/low dose extrapolations can be performed. Definitive data do not exist to prove or to disprove the above claims.

The authors indicated that EPA's proposed standard for THMs of 0.10 mg/l in drinking water supplies was based on the carcinogenic risk estimates. It should be pointed out the EPA's proposed standard for THM was based upon that feasibility of achieving the TTHM concentration in drinking water, as well as the potential adverse health effects.

EPA's Office of Water Planning and Standards and Office of Research and Development with EPA's Carcinogen Assessment Group, developed a risk estimate in the draft document, "Chloroform—The Consent Decree Ambient Water Quality Criteria Document" (1979). The method used

assumed consumption of 2 liters/per day of drinking water and 18.7 gm/per day of fish and shellfish. The lifetime risk estimates for excess cancers range from  $10^{-5}$ ,  $10^{-6}$ , and  $10^{-7}$  with corresponding consumption of 2.1 ug/l, 0.21 ug/l and 0.021 ug/l, respectively. The difference in these risk estimations may be explained by the assumption of daily fish consumption as well as other exposure sources. Without the fish consumption, the equivalent concentrations are 4.8 ug/l and 0.48 ug/l for estimated cancer risk of  $1 \times 10^{-5}$  and  $1 \times 10^{-6}$ , respectively. When this estimate is computed for the concentration of 0.10 mg/l for levels in drinking water, the incremental risk would be  $4.0 \times 10^{-4}$  assuming two liters of water at 0.10 mg/l was consumed daily for 70 years.

At an assumed lifetime exposure of 2 liters of water per day at 0.10 mg/l chloroform the risk reduction to the impacted population was estimated as a range of approximately 200-500 total cases. It should be noted however, that these average exposure levels in the impacted population may result in overestimates of the risk in light of the facts that: (1) The computations are based upon lifetime exposures. In actuality the proposed interim standard will likely be reduced in the future as technologically feasible, and, therefore, the lifetime exposure values will be less. (2) The interim standard encourages maximum reduction obtainable using current technology. A much lower average exposure is likely in the future because technology will most likely improve and result in greater exposure reductions. On the other hand, these may be underestimated because they are based upon toxicity exposure data from chloroform, which is only a portion of the TTHMs, which are only a portion of the by-products of the chlorination process; therefore, the magnitude of the contribution to the risk of the other THMs, which in some cases contribute significantly to TTHMs, is unknown. The exposure to THMs from air and food have not been included in these computations.

#### X. Selected Maximum Contaminant Levels (MCLs)

Since a risk to the public exists from exposure to TTHMs and other chlorination by-products in drinking water, the potential for that risk should be reduced as much as is technologically and economically feasible without increasing the risk of microbiological contamination. This can be accomplished by several means, and the Safe Drinking Water Act (Pub. L. 93-523) provides two major regulatory

avenues—(1) the establishment of an MCL, or (2) the institution of a treatment requirement.

EPA has determined that the establishment of an MCL in the Interim Primary Drinking Water Regulations, along with monitoring requirements, is the most effective and immediate approach to reducing the levels of THMs in drinking water. The Administrator has determined that monitoring is both technically and economically feasible (refer to "Economic Impact Analysis of a Trihalomethane Regulation for Drinking Water," EPA, 1977). Measures taken to reduce the THM concentrations will concurrently provide the additional benefit of reducing human exposure to the other undefined by-products of chlorination and possibly other synthetic organic contaminants.

Since it is known that chlorination of water is primarily responsible for the relatively high levels of THMs in drinking water, modifications in the chlorination process, the substitution of other disinfectants, and the use of adsorbents and other technologies to remove precursor chemicals are possible approaches to control. The optimal approach would be to reduce organic precursor concentrations prior to addition of a disinfectant in order to reduce disinfectant demand and minimize all by-products.

Use of a chlorine residual in a less active form such as combined chlorine or chloramine will significantly reduce THM formation; however, chloramines are much less potent disinfectants than free chlorine, and therefore, this approach must only be used after careful consideration, and assurance of maintenance of excellent biological quality. The two chemicals most often mentioned as substitute disinfectants, ozone and chlorine dioxide, are both well known as effective disinfectants and chemical oxidants. The issues of the biological effects and toxicity of these disinfectants and their by-products are being clarified by studies underway. In the meantime, EPA recommended that the residual total oxidant levels after application of chlorine dioxide should be limited to 0.5 milligram per liter.

The National Organics Monitoring Survey found that the mean total trihalomethane (TTHM) concentrations in the drinking water systems evaluated were approximately 0.068, 0.117, 0.053 and 0.100 mg/l for Phase I, II, III (dechlorinated) and III (terminal) respectively, with the highest levels of 0.784 mg/l in Phase II (refer to Table 1).

It is reasonable to assume that the various calculated risk estimates for chloroform indicate a potential risk to public health. It is possible that a

percentage of the total number of liver and/or kidney cancers are attributable to exposure of chloroform in drinking water, although it is most likely that drinking water exposure would interact with a number of other variables such as smoking and diet as effect modifiers in a multifactorial manner. It is also likely that the other by-products of chlorination also present a potential risk.

Thus, based upon a number of risk extrapolations assuming various levels of exposure to chloroform in drinking water, it has been estimated that such exposures may cause an annual excess of cancers in the U.S. population (ranging from 0 to several hundred). At higher levels of exposure of chloroform (>0.300 mg/l) the cancer risk estimates are even higher.

The reduction of TTHMs to an MCL level of 0.10 mg/l would reduce the unnecessary and excessive exposure to these potential human carcinogens, mutagens, and chronic toxicants, and other effects. At the same time, measures taken to reduce THM levels (such as the use of adsorbents) will concurrently result in reduction of human exposure to other contaminants in drinking water.

Since it is economically and technologically feasible to reduce the THM levels in drinking water, and since benefits are achieved by reducing the health risks of exposure, EPA has decided to establish the MCL at 0.10 mg/l as the initial feasible step in a phased, regulatory approach. As more data become available from implementation experience, and toxicology and epidemiology, standards are expected to become more restrictive. In the meantime, EPA and the States should continue to take steps as necessary on a case-by-case basis to provide adequate protection for the delivery of safe drinking water to the public, by minimizing the amounts of toxic chemicals in the water.

#### XI. References

- Alavanja, M., et al., 1978. "An Epidemiological Study of Cancer Mortality and Trihalomethanes in Drinking Water in 19 New York State Counties." U.S. EPA, Office of Research and Development, Health Effects Research Laboratory, Cincinnati, Ohio, Unpublished.
- Alavanja, M., Goldstein, I., and Susser, M., 1977. "Case Control Study of Gastrointestinal Cancer Mortality in Seven Selected New York Counties in Relation to Drinking Water Chlorination." U.S. EPA, Office of Research and Development, Health Effects Research Laboratory, Cincinnati, Ohio, Unpublished.
- Alavanja, M., Goldstein, I., and Susser, M., 1976. "Report of Control Study of Cancer Deaths in Four Selected New York Counties in Relation of Drinking Water Chlorination." U.S. EPA, Office of Research and Development, Health Effects Research Laboratory, Cincinnati, Ohio, Unpublished Draft.
- American Conference on Industrial Government Hygienists, 1975. "Threshold Limit Values for Chemical Substance in Workroom Air." Cincinnati, Ohio.
- Ames, B. N., W. E. Durston, E. Yamaski, and F. D. Lee, 1973. "Carcinogens are Mutagens: A Simple Test System Combining Liver Homogenates for Activation and Bacteria for Detection." *Proc. Nat. Academy of Science, USA*, 70: 2281-2286.
- Bellar, R. A., Lichienberg, J. J., and Kroner, R. C., 1974. "The Occurrence of Organohalides in Finished Drinking Waters." *Journal of American Water Works Association*, 66:
- Brenniman, G., et al., 1979. "Relationship Between Cancer Mortality and Chlorinated Drinking Water." University of Illinois, Unpublished Draft.
- Brown, D. M., Langley, P. F., Smith, D., and Taylor, D. C., 1974. "Metabolism of Chloroform I. The Metabolism of [C] Chloroform by Different Species." *Xenobiotica* 4: 155-163.
- Buncher, C. R., 1975. "Cincinnati Drinking Water—An Epidemiologic Study of Cancer Rates." University of Cincinnati Medical Center, Cincinnati, Ohio.
- Bunn, W. W., Haas, B. B., Deane, E. R., and Kleopfer, R. D., 1975. "Formation of Trihalomethanes by Chlorination of Surface Water." *Environmental Letters* 10: 205-213.
- Burreson, G. J., Moore, R. E., and Roller, P. P., 1975. "Volatile Halogen Compounds in the Algae *Asparagopsis Taxiformis*." *J. Agric. Food Chem.* 24: 856-861.
- Butterfield, C. T. and Wattie, S., 1944. "Influence of pH and Temperature on the Survival of Coliforms and Enteric Pathogens When Exposed to Free Chlorine." *Public Health Rep.* 58: 1837-1866.
- Butterfield, C. T. and Wattie, S., 1946. "Influence of pH and Temperature on the Survival of Coliforms and Enteric Pathogens When Exposed to Chloramine." *Public Health Rep.* 61: 157-192.
- Canter, K., Hoover, R., Mason, T., and McCabe, L., 1978. "Association of Cancer Mortality with Halomethanes." *J. of National Cancer Inst.* 61: 979-985.
- Chernoff, 1977. "Personal Communication."
- Clarke, N. A. and Kabler, P. K., 1954. "Inactivation of Purified Coxsackie Virus in Water by Chlorine." *Am. J. Hyg.* 59: 119-127.
- Cotruvo, J. A., Simmon, V. F. and Spangord, R. J., 1977. "Investigation of Mutagenic Effects of Products of Ozonation Reactions in Water." *Annals of the New York Academy of Sciences*, in press, and "Personal Communications."
- Cole, P. C., Hoover, R., and Friedell, G. H., 1972. "Occupation and Cancer of the Lower Urinary Tract." *Cancer*, 29: 1250-60.
- DeRouen, T. A., and Diem, J. E., 1975. "Ethnic, Geographical Difference in Cancer Mortality in Louisiana." Tulane University, School of Public Health and Tropical Medicine, Unpublished.
- DeRouen, T. A. and Diem, J. E., 1975. "The New Orleans Drinking Water Controversy: A Statistical Perspective." *American Journal of Public Health*, 65: (No. 10): 1060.

- DeSalva, S., Volpe, A., Leigh, G., and Regan, T., 1975. "Long-Term Safety Studies of a Chloroform-Containing Dentifrice and Mouth Rinse in Man." *Food Cosmet. Toxicol.* 13: 529-532.
- Dewey, W., Personal Communication, Medical College of Virginia.
- Docks, E.L. and Krishna, G., 1976. "The Role of Glutathione in Chloroform Induced Hepatotoxicity." *Experimental and Molecular Pathology* 24: 13-22.
- EPA, 1979. "Chloroform—The Consent Decree Ambient Water Quality Criteria Document." EPA, Office of Water Planning and Standards. Unpublished Draft.
- EPA, April 1976. "Industrial Pollution of the Lower Mississippi River in Louisiana." Region VI, Dallas, Texas.
- EPA, 1974. "Analytical Report, New Orleans Water Supply Study." Region VI, Dallas, Texas.
- EPA, 1975. "A Report—Assessment of Health Risk from Organics in Drinking Water by an Ad Hoc Study Group to the Hazardous Materials Advisory Committee." Science Advisory Board. Unpublished.
- EPA, June 1975. "Region V Joint Federal/State Survey of Organics and Inorganics in Selected Drinking Water Supplies." Region V, Chicago, Illinois.
- EPA, 1976. "Risk Evaluation of Chloroform." Office of Pesticides Programs, Criteria and Evaluation Division. Unpublished.
- EPA, 1977. "Chloroform Risk Assessment in Drinking Water." Cancer Assessment Group. Unpublished.
- EPA, August 1977. "Economic Impact Analysis of a Trihalomethane Regulation for Drinking Water," prepared by Temple, Barker, and Sloan, Inc. for EPA, Office of Drinking Water.
- EPA, June 1976. "Interim Treatment Guide for the Chloroform and other Trihalomethanes." EPA, Water Supply Research Division, Municipal Environmental Research Laboratory, Cincinnati, Ohio.
- Eschenbrenner, A.B. and Miller, E., 1945. "Introduction of Hepatomas in Mice by Repeated Oral Administration of Chloroform with Observation on Sex Differences." *J. Nat'l. Cancer Inst.* 5: 251-255.
- Fry, F.J., Taylor, T., and Hathaway, E.D., 1972. "Pulmonary Elimination of Chloroform and Its Metabolites in Man." *Arch. Int. Pharmacodyn.* 196: 98-111.
- Hefferman, P., 1977, Personal Communication.
- Heilbrunn, G., Liebert, E., and Szanto, P.B., 1945. "Chronic Chloroform Poisoning—Clinical and Pathological Report of a Case." *Arch. Neurol. Psych.* 53: 68-72.
- Hogan, M.D., Chi, P., Hoel, D.G., and Mitchell, T.J., 1979. "Association Between Chloroform Levels in Finished Drinking Water Supplies and Various Site-Specific Cancer Mortality Rates." *J. of Env. Path. & Tox.* 2: 873-887.
- Ilett, K.F., Reid, W.P., Sipes, I.G., and Krishna, G., 1973. "Chloroform Toxicity in Mice: Correlation of Renal and Hepatic Necrosis with Covalent Binding of Metabolites to Tissue Macromolecules." *Exptl. Molec. Pathol.* 19: 215-229.
- Jones, W.M., Marguis, G., and Stephen, C.R., 1958. "Hepatotoxicity of Inhalation Anesthetic Drugs." *Anesthesiology* 19: 715-23.
- Kelly, S.M. and Sanderson, W.W., 1960. "The Effect of Chlorine in Water on Enteric Viruses. II. The Effect of Combined Chlorine on Poliomyelitis and Coxsackie Viruses." *Am. J. Public Health*, 50: 14-20.
- Kubic, V.L., Anders, M.W., Engel, R.R., Barlow, C.H., and Caughey, W.S., 1974. "Metabolism of Dihalomethanes to Carbon Monoxide. In Vivo Studies." *Drug Metabolism and Disposition* 2: 53-57.
- Kruse, C.W., 1977. "Chlorination of Public Water Supplies and Cancer—Washington County, Maryland Experience." A Final Report, John Hopkins University, School of Hygiene and Public Health to the Office of Research and Development, Health Effects Research Laboratory, Cincinnati, Ohio, Unpublished Draft.
- Kuzma, R.J., Kuzma, C.J. and Buncher, C.R., 1977. "Ohio Drinking Water Source and Cancer Rates." *American Journal of Public Health* 67: 725-729.
- Lehman, K.B. and Hasegawa, 1910. "Studies of the Absorption of Chlorinated Hydrocarbons in Animals and Humans." *Archives of Hygiene* 72: 327.
- Mah, R. A., Spivey, G. H., and Sloss, E., 1977. "Cancer and Chlorinated Drinking Water." A Final Report, University of California, Los Angeles, School of Public Health to the Office of Research and Development, Health Effects Research Laboratory, Cincinnati, Ohio, Unpublished.
- McCabe, L. J., 1975. "Association Between Halogenated Methanes in Drinking Water and Mortality." EPA, Health Effects Research Laboratory, Cincinnati, Ohio, Unpublished.
- McLean, A. E. M., 1970. "The Effect of Protein Deficiency and Microsomal Enzyme Induction by DDT and Phenobarbitone on the Acute Toxicity of Chloroform and a Pryolizone Alkaloid, Retrosine." *British Journal of Experimental Pathology* 51: 317-21.
- Meinhardt, T. J., Mareinfeld, C. J., Miller, R. S., and Wright, H. T., 1975. "River Water and Cancer Mortality." Environmental Health Surveillance Center, University of Missouri, Unpublished.
- Michael, G. E., et al., 1979. "Chlorine Dioxide Water Disinfection: A Prospective Epidemiologic Study." U.S. EPA, Office of Research and Development, HERL, Cincinnati, Ohio.
- NAS, 1978. "Epidemiological Studies of Cancer Frequency and Certain Organic Constituents of Drinking Water—A Review of Recent Literature Published and Unpublished." Washington, D.C.
- NAS, 1977. "Drinking Water and Health." Washington, D.C.
- NAS, 1977. "Non-Fluorinated Halomethanes in the Environment." Washington, D.C.
- NAS, 1979. "The Disinfection of Drinking Water." Washington, D.C. Unpublished Draft.
- NAS, 1979. "The Chemistry of Disinfectants in Water: Reactions and Products." Washington, D.C. Unpublished Draft.
- National Cancer Institute, 1976. "Report on Carcinogenesis Bioassay of Chloroform." National Institute of Occupational Safety and Health, 1974. "Criteria for a Recommended Standard, Occupational Exposure to Chloroform."
- Page, T. and Harris, R. H., 1975. "Relation Between Cancer Mortality and Drinking Water in Louisiana." Unpublished.
- Page, T., Harris, R. H., and Estein, S. S., 1976. "Drinking Water and Cancer Mortality in Louisiana." *Science* 193: 55-57.
- Page, T., Talbot, E., and Harris, R. H., 1974. "The Implications of Cancer Causing Substances in Mississippi River Water." Environmental Defense Fund, Washington, D.C.
- Paul, B. B. and Rubinstein, D., 1963. "Metabolism of Carbon Tetrachloride and Chloroform by the Tat." *J. Pharm. Exp. Therap.* 141: 141-148.
- Plaa, G. L., Evans, E. A., and Hine, G. H., 1963. "Relative Hepatotoxicity of Seven Halogenated Hydrocarbons." *J. Pharmacol. Exp. Therap.* 123: 224-229.
- Plaa, G. L. and Larson, R. E., 1965. "Relative Nephrotoxic Properties of Chlorinated Methane, Ethane and Ethylene Derivatives in Mice." *Toxicol. Appl. Pharmacol.* 7: 37-44.
- Pohl, L. R., et al., 1977. "Phosgene: A Metabolite of Chloroform." *Biochemical and Biophysical Research Communications*, Bethesda, Maryland.
- Pohl, L. R. and Krishna, G., 1978. "Deuterium Isotope Effect in Bioactivation and Hepatotoxicity of Chloroform." *Life Sciences*, Bethesda, Maryland.
- Pohl, et al., 1979. "Deuterium Isotope Effect in Vivo Bioactivation of Chloroform and Phosgene."
- Poirier, L. A., Stoner, G. D., and Shimkin, M. B., 1975. "Bioassay of Alkyl Halides and Nucleotides Base Analogs by Pulmonary Tumor Response in Strain A Mice." *Cancer Research* 35: 1411-1415.
- Rafferty, P., 1979. "Drinking Water Quality and Cancer Mortality Patterns." University of North Carolina, Chapel Hill, North Carolina, Unpublished-Masters Thesis.
- Reiches, N.A., Page T., Talbot, P., and Harris, R.H., 1976. "Carcinogenic Hazards of Organic Chemicals in Drinking Water." Unpublished.
- Reitz, R.H., Gehring, P.J., and Park, C.N., 1978. "Carcinogenic Risk Estimation for Chloroform—An Alternative to EPA's Procedures." *J. Food & Cosmet. Toxicol.* 16: 511-514.
- Roe, F.J.C., 1976. "Preliminary Report of Long-Term Tests of Chloroform in Rats, Mice and Dogs." Hazelton Laboratories, Vienna, Virginia.
- Rook, J.J., 1976. "Formation of Haloforms During Chlorination of Natural Waters." *Water Treatment & Examination* 23: 234-243.
- Rook, J.J., 1977. "Chlorination Reactions of Fulvic Acids in Natural Waters." *Env. Sci. Technol.* 11: 478-482.
- Salg, J., 1977. "Cancer Mortality Rates and Drinking Water in 346 Counties of the Ohio River Valley Basin." Final Report, University of North Carolina, Department of Epidemiology to the Office of Research and Development, Health Effects Research Laboratory, Cincinnati, Ohio, Unpublished.
- Scholler, K.L., 1968. "Electron-Microscopic and Autoradiographic Studies on the Effect of Halomethane and Chloroform on Liver Cells." *Acta. Anaesthesioly of Scandinavia* 32: 1-62.
- Schwetz, B.A., Leong, B.K.J., and Gehring, P.J., 1974. "Embryo and Fetotoxicity of

Inhaled Chloroform in Rats." *Toxicol. Appl. Pharmacol.* 28: 442-451.

Sipes, G.I., Krishna, G., and Gillette, J.R., 1972. "Bioactivation of Carbon Tetrachloride, Chloroform, and Bromotrichloromethane: Role of Cytochrome P-450." *Life Sciences*, Bethesda, Maryland.

Southeimer, H., and Kuhn, W., 1977. The Engler-Bunte Institute, University of Karlsruhe, Karlsruhe, Germany. Personal Communication.

SRI International, March 1979. "The Effects of Ozonation Reactions in Water." Volume 1.

SRI International, March 1979. "The Effects of Reactions of Chlorine Dioxide in Water." Volume 2.

Storms, W.W., 1973. "Chloroform Parties." *JAMA*, 225: 160.

Symons, J.M., Bellar, T.A., Carswell, J.K., DeMarco, J., Kropp, K.L., Robeck, G.G., Seeger, D.R., Slocum, C.J., Smith, B.L., and Stevens, A.A., 1975. National Organics Reconnaissance Survey for Halogenated Organics. *J. Am. Water Works Assn.* 67: 634-646.

Tardiff, R., 1976. Personal Communication.

Tardiff, R.G., 1976. "Health Effects of Organics: Risk & Hazard Assessment of Ingested Chloroform." The 96th Annual Conference of the American Water Works Association. New Orleans, Louisiana.

Tarone, R.E. and Gart, J.J., 1975. "The Implications of Cancer-Causing Substances in Mississippi Rain Water." An unpublished review of the study by R.H. Harris.

Taylor, D.C., Brown, D.M., Keeble, R. and Langley, P.F., 1974. "Metabolism of Chloroform II. A Sex Difference in the Metabolism of [<sup>14</sup>C] Chloroform in Mice." *Xenobiotica* 4: 165-174.

Theiss, J.C., Stoner, C.D., Shimkin, M.B., and Weisburger, E.K., 1977. "Test of Carcinogenicity of Organic Contaminants of United States Drinking Waters by Pulmonary Tumor Response in Strain A Mice." *Cancer Research* 37: 2717-2720.

Tuthill, R.W. and G. Moore, 1978. "Chlorination of Public Drinking Water Supplies and Subsequent Cancer Mortality: An Ecological Time-Lag Study." Division of Public Health, School of Health Sciences, University of Massachusetts, Unpublished. United States, Department of Health, Education and Welfare, National Institute of Occupational Safety and Health, 1973. Toxic Substance List.

Vasilenko, P. and Magno, L., 1975. "Factors Relating to the Incidence of Cancer Mortality in New Jersey." Princeton University, Princeton, New Jersey, Unpublished.

Vocci, F.J., Martin, B.R., Petty, S., and Dewey, W.L., 1977. "Effect of Acute and Subchronic Chloroform Exposure on Cholinergic Parameters in Mouse Brain." *Journal of Toxicology and Applied Pharmacology*.

Wallace, C.J., 1959. "Hepatitis and Nephrosis Due to Cough Syrup Containing Chloroform." *Calif. Med.* 73: 442.

Watanabe, P.G., McGowan, G.R., Madrid, E.O., and Gehring, P.J., 1976. "Fate of [<sup>14</sup>C] Vinyl Chloride Following Inhalation Exposure in Rats." *Toxicol. Appl. Pharmacol.* 37: 49-59.

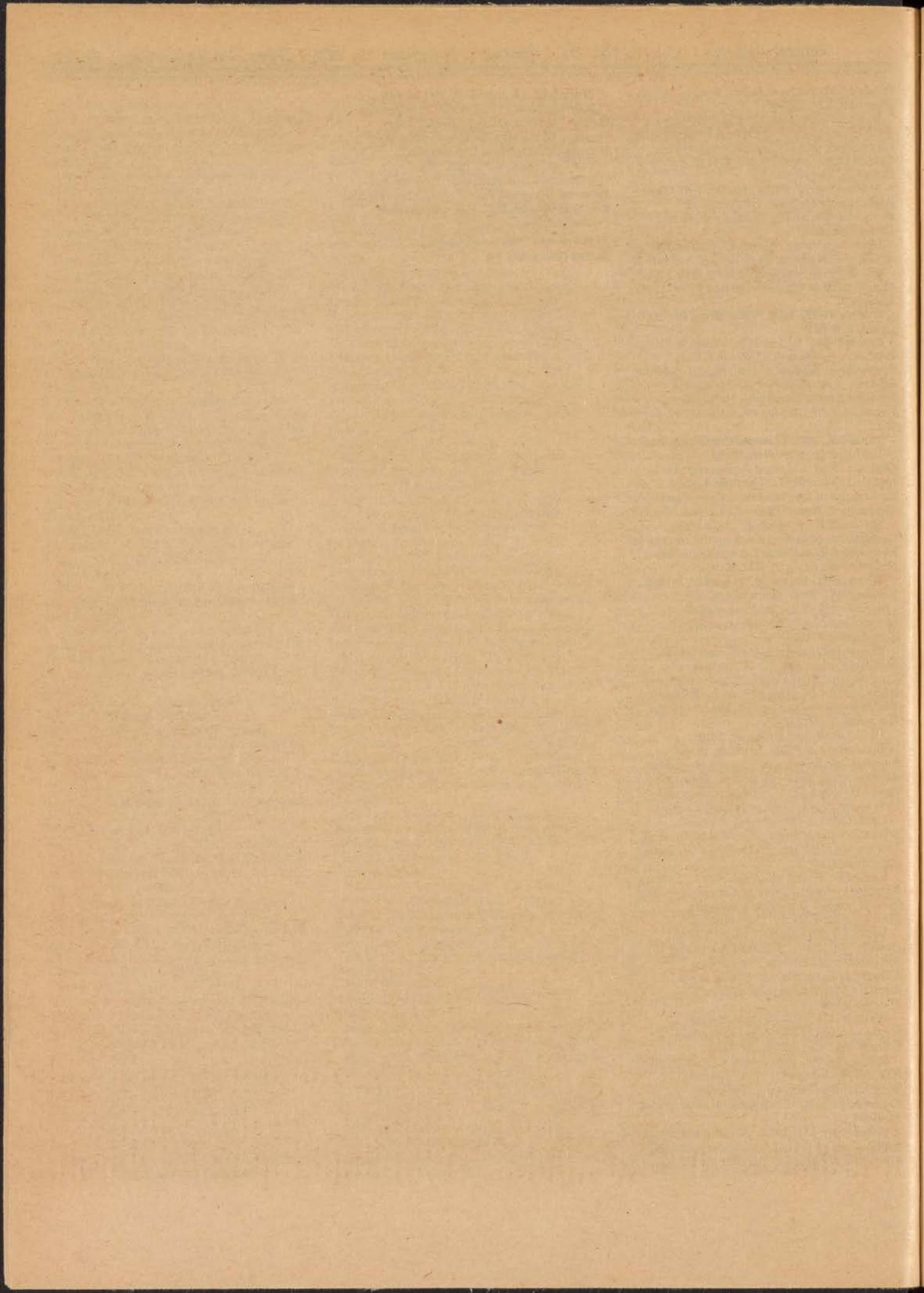
Weisburger, J.H., 1977. "Social and Ethical Implications of Claims for Cancer Hazards." *Medical and Pediatric Oncology* 3: 137-140.

Wilkins III, J.R., and C.W. Kruse, 1978. "Chlorination of Public Water Supplies and Cancer." School of Public Health, Johns Hopkins University, Baltimore, Maryland, Unpublished Doctoral Dissertation.

Von Oettingen, W.F., 1955. "The Halogenated Hydrocarbons: Toxicity and Potential Dangers." Public Health Service No. 414. Washington, D.C., U.S. Government Printing Office.

[FR Doc. 79-36442 Filed 11-28-79; 8:45 am]

BILLING CODE 6560-01-M



# Register

Thursday  
November 29, 1979

---

## Part IV

# Environmental Protection Agency

---

**Gum and Wood Chemicals Manufacturing  
Point Source Category Effluent  
Limitations Guidelines; Pretreatment  
Standards, and New Source Performance  
Standards**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 454

[FRL 1311-8]

#### Gum and Wood Chemicals Manufacturing Point Source Category Effluent Limitations Guidelines; Pretreatment Standards, and New Source Performance Standards

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed Regulation.

**SUMMARY:** EPA proposes regulations to limit effluent discharges to navigable waters and publicly owned treatment works from facilities engaged in processing sulfate turpentine; tall oil rosin, fatty acids, and pitch; wood rosin, turpentine, and pine oil; and from rosin-based derivatives plants associated with manufacturing facilities in SIC Code 2861. The purpose of this proposal is to provide effluent limitations guidelines for "best available technology" for the Rosin-based Derivatives and Sulfate Turpentine subcategories and to establish "best practicable technology", "best conventional pollutant control technology", and "new source performance standards" for the four subcategories and "pretreatment standards" for the Rosin-based Derivatives and Sulfate Turpentine subcategories, under sections 301, 304, 306, 307, and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, as amended by the Clean Water Act of 1977). These regulations are also proposed in compliance with the Settlement Agreement in *Natural Resources Defense Council, Inc. v. Train*, 8 ERC 2120 (D.O.C. 1976).

The effect of these regulations on the Gum and Wood Chemicals Industry would be to require pretreatment of process wastewaters discharged to publicly owned treatment works (POTWs), and treatment of process wastewaters discharged to waters of the United States. After considering comments received in response to this proposal, EPA will promulgate a final rule.

This notice also contains information on three additional subcategories: Char and Charcoal Briquets; Gum Rosin and Turpentine; and Essential Oils. By virtue of either the effect of existing regulations or current industry practices, the majority of plants in these subcategories are achieving no discharge of process wastewater.

Therefore, the Agency concludes that no further guidelines or standards are necessary for these subcategories.

The Supplementary Information section of this preamble describes the legal authority and background, the technical and economic bases, and other aspects of the proposed regulations. That section also summarizes comments on a draft technical document circulated on January 19, 1979, and solicits comments on specific areas of interest. The abbreviations, acronyms, and other terms used in the Supplementary Information section are defined in Appendix A to this notice.

These proposed regulations are supported by three major documents available from EPA. Analytical methods are discussed in *Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants*. EPA's technical conclusions are detailed in the *Development Document for Proposed Effluent Limitations Guidelines, New Source Performance Standards, and Pretreatment Standards for the Gum and Wood Chemicals Industry Point Source Category*.

The Agency's economic analysis is found in *Economic Impact Analysis of Proposed Effluent Limitations Guidelines, New Source Performance Standards, and Pretreatment Standards for the Gum and Wood Chemicals Point Source Category*.

**DATES:** Comments on this proposal must be submitted by January 28, 1980.

**ADDRESS:** Send comments to: Mr. William Thomson II, P.E., Effluent Guidelines Division, Environmental Protection Agency, 401 M Street, Southwest, Washington, D.C. 20460. Attention: EGD Docket Clerk, Gum and Wood (WH-552). The supporting information and all comments on this proposal will be available for inspection and copying at the EPA Public Information Reference Unit, Room 2404 (Rear) PM-213 (EPA Library). The EPA information regulation (40 CFR Part 2) provides that a reasonable fee may be charged for copying.

**FOR FURTHER INFORMATION CONTACT:** Technical information and copies of technical documents may be obtained from Mr. William Thomson II, P.E., at the address listed above or call (202) 426-2554. The economic analysis may be obtained from Ms. L. Jean Noroian, Economic Analysis Staff (WH-586), Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, (202) 426-2617.

## SUPPLEMENTARY INFORMATION:

### Organization of this Notice

- I. Legal Authority
- II. Background
  - A. The Clean Water Act
  - B. Prior EPA Regulations
  - C. Overview of the industry
- III. Scope of this Rulemaking and Summary of Methodology
- IV. Data Gathering Efforts
- V. Sampling and Analytical Program
- VI. Industry Subcategorization
- VII. Available Wastewater Control and Treatment Technology
  - A. Status of In-Place Technology
  - B. Control Technologies Considered
- VIII. Best Practicable Technology (BPT) Effluent Limitations
- IX. Best Conventional Technology (BCT) Effluent Limitations
- X. Best Available Technology (BAT) Effluent Limitations
- XI. New Source Performance Standards (NSPS)
- XII. Pretreatment Standards for Existing Sources (PSES)
- XIII. Pretreatment Standards for New Sources (PSNS)
- XIV. Regulated Pollutants
- XV. Pollutants and Subcategories Not Regulated
- XVI. Monitoring Requirements
- XVII. Costs, Effluent Reduction Benefits, and Economic Impacts
- XVIII. Small Business Administration Financial Assistance
- XIX. Non-Water Quality Aspects of Pollution Control
- XX. Best Management Practices (PMPs)
- XXI. Upset and Bypass Provisions
- XXII. Variances and Modifications
- XXIII. Relationship to NPDES Permits
- XXIV. Summary of Public Participation
- XXV. Solicitation of Comments
- XXVI. Appendices:
  - A. Abbreviations, Acronyms, and Other Terms Used in this Notice
  - B. Toxic Pollutants Not Detected in Treated Effluents
  - C. Toxic Pollutants Detected in Final Effluent Samples

### I. Legal Authority

The regulations described in this notice are proposed under authority of sections 301, 304, 306, 307, 308, and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1251 *et seq.*, as amended by the Clean Water Act of 1977, Pub. L. 92-517). These regulations are also proposed in compliance with the Settlement Agreement in *Natural Resources Defense Council, Inc. v. Train*, 8 ERC 2120 (D.D.C. 1976), modified March 9, 1979.

### II. Background

#### A. The Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972 established a comprehensive program to "restore and maintain the chemical, physical, and

biological integrity of the Nation's waters" section 101(a). By July 1, 1977, existing industrial dischargers were required to achieve "effluent limitations requiring the application of the best practicable control technology currently available" ("BPT"), section 301(b)(1)(A); and achieve "effluent limitations requiring the application of the best available technology economically achievable \* \* \* which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants" ("BAT"), section 301(b)(2)(A). New industrial direct dischargers were required to comply with section 306 new source performance standards ("NSPS"), based on best available demonstrated technology; and new ("PSNS") and existing ("PSES") dischargers to publicly owned treatment works ("POTWs") were subject to pretreatment standards under sections 307(b) and (c) of the Act. While the requirements for direct dischargers were to be incorporated into National Pollutant Discharge Elimination System (NPDES) permits issued under section 402 of the Act, pretreatment standards were made enforceable directly against dischargers to POTWs (indirect dischargers).

Although section 402(a)(1) of the 1972 Act authorized the setting of requirements for direct dischargers on a case-by-case basis, Congress intended that, for the most part, control requirements would be based on regulations promulgated by the Administrator of EPA. Section 304(b) of the Act required the Administrator to promulgate regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of BPT and BAT. Moreover, sections 304(c) and 306 of the Act required promulgation of regulations for NSPS, and sections 304(f), 307(b), and 307(c) required promulgation of regulations for pretreatment standards. In addition to these regulations for designated industry categories, section 307(a) of the Act required the Administrator to promulgate effluent standards applicable to all dischargers of toxic pollutants. Finally, section 501(a) of the Act authorized the Administrator to prescribe any additional regulations "necessary to carry out his functions" under the Act.

The EPA was unable to promulgate many of these regulations by the dates contained in the Act. In 1976, EPA was sued by several environmental groups, and in settlement of this lawsuit EPA and the plaintiffs executed a "Settlement Agreement" which was

approved by the Court. This Agreement required EPA to develop a program and adhere to a schedule for promulgating for 21 major industries BAT effluent limitations guidelines, pretreatment standards, and new source performance standards for 65 "priority" pollutants and classes of pollutants. See *Natural Resources Defence Council, Inc. v. Train*, 8 ERC 2120 (D.D.C. 1976), modified March 9, 1979.

On December 27, 1977, the President signed into law the Clean Water Act of 1977. Although this law makes several important changes in the Federal water pollution control program, its most significant feature is its incorporation into the Act of several of the basic elements of the Settlement Agreement program for toxic pollution control. Sections 301(b)(2)(A) and 301(b)(2)(C) of the Act now require the achievement by July 1, 1984, of effluent limitations requiring application of BAT for "toxic" pollutants, including the 65 "priority" pollutants and classes of pollutants which Congress declared "toxic" under section 307(a) of the Act. Likewise, EPA's programs for new source performance standards and pretreatment standards are now aimed principally at toxic pollutant controls. Moreover, to strengthen the toxics control program, Congress added section 304(e) to the Act, authorizing the Administrator to prescribe "best management practices" ("BMPs") to prevent the release of toxic and hazardous pollutants from plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage associated with, or ancillary to, the manufacturing or treatment process.

In keeping with its emphasis on toxic pollutants, the Clean Water Act of 1977 also revised the control program for non-toxic pollutants. Instead of BAT for "conventional" pollutants identified under section 304(a)(4) (including biochemical oxygen demand, suspended solids, fecal coliform, and pH), the new section 301(b)(2)(E) requires achievement by July 1, 1984, of "effluent limitations requiring the application of the best conventional pollutant control technology" ("BCT"). The factors considered in assessing BCT for an industry include the costs and benefits of attaining a reduction in effluents, compared to the costs and effluent reduction benefits from the discharge of publicly owned treatment works (section 304(b)(4)(B)). For non-toxic, nonconventional pollutants, sections 301(b)(2)(A) and (b)(2)(F) require achievement of BAT effluent limitations within three years after their

establishment or July 1, 1984, whichever is later, but not later than July 1, 1987.

The purpose of these proposed regulations is to provide effluent limitations guidelines for BAT and pretreatment standards in the existing sources (PSES) for Sulfate Turpentine and Rosin-based Derivatives subcategories, and to establish BPT, BCT, and NSPS in the Wood Rosin, Turpentine, and Pine Oil; Tall Oil Rosin, Fatty Acids, and Pitch; Sulfate Turpentine; and Rosin-based Derivatives subcategories under sections 301, 304, 306, 307, and 501 of the Clean Water Act.

#### B. Prior EPA Regulations

EPA promulgated Interim Final BPT and proposed BAT, NSPS, and PSNS for the Char and Charcoal Briquets; Gum Rosin and Turpentine; Wood Rosin, Turpentine and Pine Oil; Tall Oil Rosin, Fatty Acids, and Pitch; Essential Oils; and Rosin-Based Derivatives subcategories of the Gum and Wood Chemicals Manufacturing Point Source Category on May 18, 1976 (Part 41 FR 20506).

The regulations proposed in this notice include new BAT, BCT, NSPS, PSES, and PSNS regulations for the Rosin-based Derivatives subcategory. BCT and NSPS regulations are proposed for the Wood Rosin and Tall Oil subcategories. BPT, BAT, BCT, NSPS, PSES, and PSNS regulations are proposed for a new subcategory, Sulfate Turpentine.

#### C. Overview of the Industry

The Char and Charcoal Briquets (Segment A); Gum Rosin and Turpentine (Segment B); Wood Rosin, Turpentine, and Pine Oil (Segment C); Tall Oil Rosin, Fatty Acids, and Pitch (Segment D); and Essential Oils (Segment E) subcategories are included within the U.S. Department of Commerce, Bureau of the Census Standard Industrial Classification (SIC) 2861. Facilities for manufacturing rosin-based derivatives (Segment F) are included in SIC 2821; this study covers only those rosin-based derivatives manufacturing plants located within and operated in conjunction with Gum and Wood Chemicals plants (SIC 2861). Sulfate turpentine manufacturing (Segment G) has not been included in the Standard Industrial Classification system. However, since sulfate turpentine, like tall oil, is a by-product of the Kraft pulping process in the pulp and paper industry and is refined and further processed primarily by facilities with other SIC 2861 manufacturing processes, EPA has included it as a part of this study.

The Gum and Wood Chemicals Industry originated in the Naval Stores industry. North American colonists harvested pine oleoresin for use in construction of naval vessels and the industry has grown and expanded since then as new uses for pine products have arisen. One of the more significant innovations has been development of the use of by-products from the Kraft paper process—tall oil and sulfate turpentine—as raw materials for the Gum and Wood Chemicals Industry.

Char results from the destructive distillation of softwood and hardwood and may be further processed into charcoal or activated carbon.

Gum rosin and turpentine are produced from the sap of live pines, which is distilled to separate the turpentine and gum rosin.

Wood rosin, turpentine, and pine oil are produced by solvent extraction from pine chips. After recovery of the solvent, distillation separates turpenes, rosin, pine oil, and residual pitch.

Crude tall oil, derived from the Kraft pulping process, is acidulated (treated with dilute sulfuric acid) and then distilled to separate pitch, rosin acids, and fatty acids.

Essential oils are produced by steaming the oil containing raw material under pressure. The resulting oil/water mixture is allowed to separate and the finished oil product is sold.

Rosin derivatives processing is usually a batch modification of rosins. Process operating conditions in the reaction kettle depend on product specifications, raw materials, and other variables.

Sulfate turpentine is condensed from relief gas from the digester of the Kraft pulping process. Distillation separates the turpentine into its components: alpha-pinene, beta-pinene, dipentene, sulfated pine oil, limonene, camphene, and anethol.

EPA has identified 114 plants in the Gum and Wood Chemicals Industry in the United States, primarily located in the South, Mid-Atlantic, and Midwest states. Plant age, number of employees, and wastewater volume vary from subcategory to subcategory. Char and Charcoal Briquets, Gum Rosin, and Essential Oils (91 plants) all have processing techniques that have not changed for years. These plants also have the lowest flows ranging from zero in Char and Charcoal Briquets to one plant in Essential Oils with an average flow of 5,000 gallons per day. Sulfate Turpentine and Tall Oil are two of the newest processing technologies in the industry with most units being less than 30 years old. Rosin-Based Derivatives

processing is a continually changing segment of the industry.

While the industry historically is characterized by small independent companies processing wood stumps or gum exudate from pine trees, considerable consolidation has taken place over the past 15 years such that all but two of the plants in the four subcategories covered by these proposed regulations are operated by multi-industry corporations (14 plants) or pulp and paper companies (7 plants). Of the eight major corporations operating plants in the four subcategories the largest accounts for 42% of sales, the two largest account for 65% of sales and the four largest account for 83% of sales.

During the past 10 years, the industry has maintained a modest but cyclical rate of sales growth that has averaged about 3-4% annually. However, most of the growth has been due to price increases and a general trend of upgrading the value of products produced. Real growth in production volume has declined slightly. Tall oil production alone has increased measurably over this period. In addition to supporting the low growth in sales, the industry ranks fairly low with regard to profitability. The industry's annual return on sales is around 4-5% which is 1-2% below the average for all chemicals and allied products. The major reason for the low levels of profitability has been the intense competition from higher performance material based on petroleum products which have kept prices well below desirable levels. The trend to production of upgraded, higher value products has helped alleviate some of this competition and has resulted in some profitability improvement. Currently, however, the Agency is aware of plants for only one new plant (in the tall oil subcategory) in the four subcategories covered by these proposed regulations.

Capital expenditures have typically been small and over the period 1972 through 1976 have averaged less than 3% of sales. It is expected, however, that future trends toward product upgrading will require significantly increased capital expenditures. Since depreciation is a very small percent of sales (estimated as less than 5%), funds for these investments will likely not be generated entirely from operations.

Water is essential to the Gum and Wood Chemicals Industry and is used invirtually all processes except those for char and charcoal briquets. Water cleans out the tank cars which transport the raw material. It is used in gum rosin, wood rosin, tall oil, and sulfate turpentine in barometric condensers

which generate the vacuum in the distillation columns. Water steams the oil out of the raw material for essential oils. Chemical reactions in rosin derivatives generate water and water cleans the reaction kettles. The wastewater from all these operations contains high levels of oils, biodegradable organic matter, and toxic pollutants.

The most important pollutants or pollutant parameters are: (1) Toxic pollutants (benzene, toluene, ethylbenzene, phenol, methylene chloride, copper, chromium, nickel, and zinc); (2) conventional pollutants (BOD<sub>5</sub>, TSS, Oil and Grease, and pH); and (3) non-conventional pollutants (COD).

### III. Scope of this rulemaking and summary of methodology

These proposed regulations open a new chapter in water pollution control requirements for the Gum and Wood Chemicals Industry. EPA's 1973-1976 round of rulemakings emphasized the achievement of best practicable technology (BPT) by July 1, 1977. In general, this technology level represents the average of the best performances a of well known technologies for control of familiar (i.e., "classical") pollutants.

This round of rulemaking, in contrast, aims for the achievement by July 1, 1984, of the best available technology economically achievable (BAT), which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants. At a minimum, this technology level represents the very best economically achievable performance in any industrial category or subcategory. Moreover, as a result of the Clean Water Act of 1977, the emphasis of EPA's program has shifted from control of "classical" pollutants to control of toxic substances.

In its 1977 legislation, Congress recognized that it was dealing with areas of scientific uncertainty when it declared the 65 "priority" pollutants and classes of pollutants "toxic" under section 307(a) of the Act. The "priority" pollutants have been relatively unknown outside of the scientific community, and those engaged in wastewater sampling and control have had little experience dealing with them. Additionally, these pollutants often appear and have toxic effects at concentrations which severely tax current analytical techniques. Though Congress was aware of the state-of-the-art difficulties and expense of "toxics" control and detection, it nevertheless directed EPA to act quickly and decisively to detect, measure, and regulate these substances.

EPA's implementation of the Act required a complex development program. Initially, because in many cases no public or private agency had done so, EPA and its laboratories and consultants had to develop analytical methods for toxic pollutant detection and measurement, which are discussed under Sampling and Analytical Program. EPA then gathered technical and financial data about the industry, which are summarized under Data Gathering Efforts. The Agency developed these proposed regulations on the basis of its information.

EPA first studied the Gum and Wood Chemicals Industry to determine whether differences in raw materials, final products, manufacturing processes, equipment, age and size of plants, water usage, wastewater constituents, or other factors required the development of separate effluent limitations and standards for different segments of the industry. This study included the identification of the raw waste and treated effluent characteristics, including the sources and volume of water used, the processes employed, and the sources of pollutants and wastewaters in the plant.

Next, EPA identified several distinct control and treatment technologies, both in-plant and end-of-process, which are either in use or capable of use in the Gum and Wood Chemicals Industry.

The Agency compiled and analyzed both historical and newly generated data on the effluent quality resulting from the application of these technologies. The long-term performance, operational limitations, and reliability of each of the treatment and control technologies were also identified. In addition, EPA considered the non-water quality environmental impacts of these technologies, including impacts on air quality, solid waste generation, water scarcity, and energy requirements.

EPA derived unit process costs from model plant characteristics (production and flow) applied to each treatment process unit cost curve (i.e., pH adjustment, activated sludge, metals precipitation by pH adjustment, activated carbon columns, etc.). These unit process costs were estimated at each treatment level for ease of analysis. Total costs at each treatment level were then calculated by adding the unit costs at that level to the cost of previous levels. After confirming the reasonableness of this methodology, the Agency evaluated the economic impacts of these costs. (Cost and economic impacts are discussed in detail under the various technology options, and in the section of this notice entitled Costs,

Effluent Reduction Benefits, and Economic Impacts).

Upon consideration of these factors, as more fully described below, EPA identified various control and treatment technologies as BPT, BCT, BAT, PSES, PSNS, and NSPS. The proposed regulations, however, do not require the installation of any particular technology. Rather, they require achievement of effluent limitations representative of the proper operation of these technologies or equivalent technologies.

#### IV. Data Gathering Efforts

Section III of the Development Document describes in detail the data gathering program.

EPA derived the mailing list for the data gathering effort from previous plant listings in the BPT administrative record; the 1977 Dun and Bradstreet listings; Standard and Poor listings; the Stanford Research Institute Directory of Chemical Producers; and the available State Chamber of Commerce's Directory of Manufacturing. Detailed questionnaires were then mailed to 338 addressees in the seven subcategories. Of this total, 224 plants indicated no gum and wood chemicals processing at the location. For the 114 potential plants, 72 returned questionnaires. Followup telephone contact confirmed an additional 10 processors in the seven subcategories of interest. Thirty-two charcoal plants remain unconfirmed.

Distribution of the eighty-two plants by subcategory is as follows: Forty-five process char and charcoal briquets; nine process essential oils; seven process gum rosin and turpentine; four process wood rosin, turpentine, and pine oil; twelve process tall oil rosin, fatty acids, and pitch; thirteen process rosin-based derivatives; and seven process sulfate turpentine. Thirteen plants have processes in more than one subcategory.

In addition to the above data sources, EPA also consulted the Pulp Chemicals Association (PCA), obtained NPDES permit files in EPA regional offices, obtained engineering studies on treatment systems for several gum and wood chemicals plants, made contacts with state pollution control offices, and obtained a report from a demonstration project sponsored by the EPA Office of Research and Development.

Data for the economic analysis of the industry were obtained from the Development Document and from technical 308 surveys, government publications, industry association sources, publicly available financial reports and industry reports, and personal interviews with representatives of three companies

whose plants manufacture gum and wood chemicals.

#### V. Sampling and Analytical Program

As Congress recognized in enacting the Clean Water Act of 1977, the state-of-the-art ability to monitor and detect toxic pollutants is limited. Most of the toxic pollutants were relatively unknown until only a few years ago, and only on rare occasions has EPA regulated or has industry monitored or even developed methods to monitor for these pollutants. As a result, analytical methods for many toxic pollutants under section 304(h) of the Act have not yet been promulgated.

As the state-of-the-art has matured, EPA has refined the sampling and analytical protocols, and intends to continue this refinement to keep pace with technology advancements. Resource constraints, however, prevent EPA from reworking completed sampling and analyses to keep up with the evolution of analytical methods. As a result, the analytical techniques used in some rulemakings may differ slightly from those used in other rulemaking efforts. In each case, however, the analytical methods used represent the best state-of-the-art available for a given industry study. One of the goals of EPA's analytical program is the promulgation of additional section 304(h) analytical methods for toxic pollutants, scheduled to be completed within calendar year 1979.

EPA ascertained the presence or absence and magnitude of the 129 specific toxic pollutants in gum and wood chemicals wastewaters in a two-phase (screening and verification) sampling and analysis program involving ten facilities. The plants were selected primarily to be representative of the manufacturing processes, the prevalent mix of production among plants, and the current treatment technology in the industry.

The sampling and analysis program was conducted during April and May of 1978. Five plants were sampled that represented six of the seven major Gum and Wood Chemicals processes (the seventh process, Char and Charcoal Briquets, is dry). A single 24-hour composite sample was obtained from the raw and treated wastewater streams at each plant for screening analysis and analyzed for the 129 toxic pollutants. Sampling and analyses were conducted according to *Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants*, U.S. EPA, Cincinnati, March 1977 (revised April 1977), and *Analytical Methods for the Verification Phase of the BAT*

Review, U.S. EPA Effluent Guidelines Division, Washington, D.C., June 1977.

The screening sampling and analysis program determined which toxic pollutants were present in wastewaters from each industrial segment sampled, and the order of magnitude of the contamination.

EPA evaluated the results of the screening analyses along with the process engineering review for each subcategory. The toxic pollutants found to be present or suspected present due to their use as raw materials, by-products, final products, etc., were selected for verification. As a result of screening analysis, the following pollutants were not analyzed for during verification because they were not detected during screening analysis: PCB's, pesticides, cyanide, antimony, beryllium, selenium, silver, and thallium. During the screening sampling visits to four of the five selected plants, two additional 24-hour samples were collected and analyzed for the second phase of the program.

The verification sampling and analysis program, conducted over a three-month period, was intended to obtain as much quantitative data as possible for each subcategory on the 98 toxic pollutants that were identified during the screening phase. The plants selected for sampling represented the full range of in-place process and wastewater treatment technology for each subcategory. Nine plants were sampled for verification analysis.

The primary objective of the field sampling program was to collect samples of wastewater from which the concentrations of toxic pollutants could be ascertained if present. Verification sampling visits to the plants were made during three consecutive days of plant operation. Verification sampling at four of these plants was done in conjunction with screening sampling. Raw wastewater samples were taken either before treatment or after oil skimming depending upon accessibility to the wastewater stream. Treated effluent samples were taken either following pretreatment (usually indirect dischargers) or biological treatment (direct dischargers) where these technologies were in place. EPA also collected one sample of intake water to determine the presence of toxic pollutants prior to contamination by Gum and Wood Chemicals processes.

At raw waste, final discharge, and some intermediate sample points, automatic samplers took samples at timed intervals. Samples for conventional, non-toxic nonconventional and some toxic pollutants were obtained from the 24-

hour composite. Grab samples were taken in specially prepared vials for volatile (purgeable) toxic organics and cyanide.

Toxic pollutants were analyzed according to groups of chemicals and associated analytical schemes. Organic toxic pollutants included volatile (purgeable), base-neutral, and acid (extractable) pollutants, and pesticides. Inorganic toxic pollutants included heavy metals and cyanide.

The primary screening and verification method for the volatiles, base-neutral, and acid organics was gas chromatography with confirmation and quantification on all samples by mass spectrometry (GC/MS). Total phenols were analyzed by the 4-AAP method. Analysis of pesticides employed GC with electron capture detection. The Agency analyzed the toxic heavy metals by atomic absorption spectrometry (AAS), with flame or graphite furnace atomization following appropriate digestion of the sample. Cyanides were determined through the colorimetric method of distillation and analysis. Analyses for conventional pollutants (BOD<sub>5</sub>, TSS, Oil and Grease, and pH) and non-conventionals (COD) were accomplished using "Methods for Chemical Analysis of Water and Wastes," (EPA 625/6-74-003) and amendments.

Although EPA believes that the available data support these regulations, the Agency would have preferred a larger data base for some of the toxic pollutants and will continue to seek additional data. EPA will periodically review these regulations, as required by the Act, and make any revisions supported by new data. In developing these regulations, moreover, EPA has taken a number of steps to deal with the limits of science and available data. (See Regulated Pollutants).

#### VI. Industry Subcategorization

Subcategorization of the Gum and Wood Chemicals industry was first accomplished during the development of the original BPT guidelines. These subcategories were published in the *Federal Register*, May 18, 1976 (41 FR 20506). For the present study, the previous subcategorization was re-evaluated. This evaluation included a determination of whether differences in raw material used, product produced, manufacturing process employed, equipment, age, size, wastewater constituents, and other factors require development of different subcategorization of the industry. A review of the subcategories from the BPT study indicated that no further subcategorization of these segments of

the industry was warranted. However, the processing of sulfate turpentine involves a completely different raw material and results in different products with some differences in manufacturing processes. In addition, the wastewater constituents appear to be significantly different from wastewaters produced in the other subcategories. As a result, it was determined that a new industry segment, sulfate turpentine, should be added. With the addition of the sulfate turpentine subcategory, the BPT subcategorization is satisfactory. Section IV of the Development Document contains a detailed description of the factors considered and the rationale for subcategorization.

The subcategories of the Gum and Wood Chemicals industry are defined as follows:

#### *Subcategory, Product, and Raw Material Source*

- A—Char and Charcoal Briquets, Hardwood and softwood scraps
- B—Gum Rosin and Turpentine, Crude "gum" oleresin from the sapwood of living trees
- C—Wood Rosin, Turpentine, and Pine Oil, Wood stumps and other resinous woods from cut over forest
- D—Tall Oil Rosin, Pitch, and Fatty Acids, By-product crude tall oil from the Kraft process
- E—Essential Oils, Scrap wood fines, twigs, barks, or roots of select woods or plants
- F—Rosin Derivatives, Rosin products from gum, wood, and tall oil chemicals
- G—Sulfate Turpentine, Low boiling vapors condensed from the Kraft pulping of pine wood

#### VII. Available Wastewater Control and Treatment Technology

##### *A. Status of In-Place Technology*

Current treatment practices in the Gum and Wood Chemicals Industry range from oil/water separation by all plants to biological treatment by most direct dischargers. Most indirect dischargers and dischargers to combined industrial treatment systems have only oil/water separation and equalization, although one indirect discharger has extensive pretreatment in place. There are 12 direct dischargers (four comingle with industrial treatment systems which discharge directly). The four dischargers to combined treatment have oil/water separation and settling. Six direct dischargers have aerated lagoon biological treatment. One direct discharger utilizes an activated sludge biological treatment system. One direct discharger uses activated carbon in lieu of biological treatment. There are six dischargers to POTWs and two dischargers who comingle their wastes

with other industrial wastewaters prior to discharge to a POTW.

#### B. Control Technologies Considered

The control and treatment technologies used in arriving at the previously promulgated BPT effluent limitations for tall oil rosin, fatty acids, and pitch; wood rosin, turpentine, and pine oil; and rosin-based derivatives were: (1) In-plant control—wastewater reduction through decreasing and recycling process water, segregating waste streams, and oil/water separation; (2) equalization; (3) dissolved air flotation for the wood rosin and tall oil subcategories only; (4) biological treatment by activated sludge; and (5) flocculation and clarification. These same treatment technologies, except for dissolved air flotation, were used as the candidate BPT treatment levels for the sulfate turpentine subcategory presented in this proposal. Additional control and treatment technologies available for this industry include: (1) Metals precipitation and (2) granular activated carbon columns. In considering these additional control and treatment technologies, the four existing plants who comingle their wastes with other industrial wastewaters prior to treatment and discharge to waters of the United States are considered as indirect dischargers.

In-plant control, preliminary treatment, and biological treatment technologies have been demonstrated within the Gum and Wood Chemicals Industry. Metals precipitation is currently in use at one sulfate turpentine facility where the plant has isolated a wastewater source and is treating only that stream. A granular activated carbon column unit is in use at one plant in lieu of biological treatment. Performance data of activated carbon columns following biological treatment of gum and wood chemicals wastewater are not available.

#### VIII. BPT Effluent Limitations—Sulfate Turpentine

The factors considered in defining best practicable control technology currently available (BPT) include the total cost of application of technology in relation to the effluent reduction benefits achieved from such application; the age of equipment and facilities involved; the process employed; non-water quality environmental impacts (including energy requirements); and other factors considered appropriate by the Administrator. In general, the BPT technology level represents the average of the best performances of plants of various ages, sizes, processes, or other common characteristics. Where existing

performance is uniformly inadequate, the Agency may transfer BPT from a different subcategory or category. Limitations based on transfer technology must be supported by a conclusion that the technology is indeed transferable, and by a reasonable prediction that it can achieve the prescribed effluent limits. BPT focuses on end-of-pipe treatment rather than process changes or internal controls, except where such are common industry practice.

The cost/benefit inquiry for BPT is a limited balancing, committed to EPA's discretion, which does not require the Agency to quantify benefits in monetary terms. See e.g., *American Iron and Steel Institute v. EPA*, 526 F.2d 1027 (3rd Cir. 1975). In balancing costs in relation to effluent reduction benefits, EPA considers the volume and nature of existing discharges, the volume and nature of discharges expected after application of BPT, the general environmental effects of the pollutants, and the cost and economic impacts of the required pollution control level. The Act does not permit consideration of water quality problems attributable to particular sources or water quality improvements in particular water bodies. See *Weyerhaeuser Company v. Costle*, 11 ERC 2149 (D.C. Cir. 1978).

The Agency has concluded that BPT effluent limitations guidelines should be developed for sulfate turpentine producing plants because the two direct dischargers in this subcategory are located at facilities which also produce other gum and wood chemicals products. Development of numerical guidelines for BPT for this subcategory would provide the NPDES authorities the information necessary for application of BPT at these two plants. The BPT technology selected includes oil/water separation, equalization, neutralization, nutrient addition, biological treatment, and final settling. Application of this technology will result in the removal of 70 and 80.3 additional pounds per day of BOD5 and TSS respectively from the direct discharging sulfate turpentine plants.

Economic analysis indicates that compliance with this option would require one of the two direct discharge plants producing sulfate turpentine to invest a total of \$104.5 thousand and incur annualized costs (including operation and maintenance, interest, and depreciation) of \$183 thousand. These costs are projected to effect minimal price increases. The Agency projects that selection of this option will not result in any plant closures or unemployment.

#### IX. BCT Effluent Limitations

The 1977 amendments added section 301(b)(4)(E) to the Act, establishing "best conventional pollutant control technology" (BCT) for discharges of conventional pollutants from existing industrial point sources. Conventional pollutants are those defined in section 304(b)(4)—BOD, TSS, fecal coliform, and pH—and any additional pollutants defined by the Administrator as "conventional." On July 30, 1979, EPA added oil and grease to the conventional pollutant list (44 FR 44501).

BCT is not an additional limitation, but replaces BAT for the control of conventional pollutants. BCT requires that limitations for conventional pollutants be assessed in light of a new "cost-reasonableness" test, which involves a comparison of the cost and level of reduction of conventional pollutants from the discharge of publicly owned treatment works to the cost and level of such pollutants from a class or category of industrial sources. As part of its review of BAT for certain "secondary" industries, the Agency has promulgated a methodology for this cost test. See 44 FR 50732 (August 26, 1979).

EPA identified no treatment technologies beyond BPT for control of the conventional pollutants. Therefore, the proposed BCT regulations are equal to BPT.

#### X. BAT Effluent Limitations

The factors considered in assessing best available technology economically achievable (BAT) include the age of equipment and facilities involved, the process employed, process changes, non-water quality environmental impacts (including energy requirements), and the costs of application of such technology (section 304(b)(2)(B)). At a minimum, the BAT technology level represents the best existing economically achievable performance of plants of various ages, sizes, processes or other shared characteristics. As with BPT, where existing performance is uniformly inadequate, the Agency may transfer BAT from a different subcategory or category. BAT may include process changes or internal controls, even when not common industry practice.

The statutory assessment of BAT "considers" costs, but does not require a balancing of costs against effluent reduction benefits (see *Weyerhaeuser v. Costle, supra*). In developing the proposed BAT, however, EPA has given substantial weight to the reasonableness of costs. The Agency has considered the volume and nature of discharges, the volume and nature of discharges

expected after application of BAT, the general environmental effects of the pollutants, and the costs and economic impacts of the required pollution control levels.

Despite this expanded consideration of costs, the primary determinant of BAT is effluent reduction capability. As a result of the Clean Water Act of 1977, the achievement of BAT has become the principal national means of controlling toxic water pollution.

Seventeen toxic pollutants were found at levels above the detection limits in the analyses of discharges from the Gum and Wood Chemicals Industry. EPA has selected from four available options a BAT technology which will reduce this toxic pollution by a significant amount.

These options (which are described in greater detail in Section VII of the Development Document) are:

(A) Option One—Determine that effluent limitations based upon BPT technology (oil/water separation, equalization, air flotation, and biological treatment) reflect the technology which should be imposed under BAT.

No costs or economic impacts beyond that of BPT will result from selection of this option.

(B) Option Two—Require effluent limitations based upon BAT Option One plus metals removal at-the-source (at a reaction kettle or other designated site where intermediates are modified by use of a metallic catalyst) for those plants using metals in their processes. This option incorporates at-the-source metals removal by pH adjustment as described in Section VII of the Development Document.

Application of metals removal at-the-source ensures a high degree of metallic pollutants removal. One sample collected at a sulfate turpentine plant using this technology showed 155 mg/l copper in the raw waste to the metals removal unit and 1 mg/l after treatment. EPA estimates that application at-the-source (in-plant) will result in the removal of 44 pounds per day of zinc (96 percent) from three direct discharging plants which modify rosins by use of zinc as a catalyst. Since the data indicate that application of biological treatment as exemplified by activated sludge or aerated lagoons results in significant reductions of the organic toxic pollutants of concern, this option will result in effective control of all toxic pollutants shown to be present in substantial quantities in the raw wastewater generated by this industry.

Economic analysis indicates that compliance with this option would require 3 of the 8 direct dischargers to invest a total of \$225.6 thousand and incur annualized costs of \$512 thousand.

Costs of up to 5 percent of sales may be passed on through price increases. The Agency projects that selection of this option will not result in any plant closures or unemployment.

(C) Option Three—Require effluent limitations based upon BAT Option One plus metals removal at the end-of-pipe for those plants using metals in their processes or deriving them from process steps. This option incorporates end-of-pipe metals removal by pH adjustment as described in Section VII of the Development Document. However, because the metal source waste stream is diluted by other wastewater sources, this option would not result in the highest possible removal efficiency and would require significantly higher capital and operating expenses because of the high volumes of wastewater that would require treatment.

EPA estimates that application of metals removal at the end-of-pipe would result in the removal of 31.5 pounds per day of zinc (76.5 percent removal) from the three direct discharge plants using zinc as a catalyst.

Economic analysis indicates that compliance with this option would require 3 of the 8 direct discharges to invest a total of \$561 thousand and incur annualized cost of \$1.93 million. Costs of up to 5 percent of sales may be passed on through price increases. The Agency projects that selection of this option may result in one plant closure and loss of less than one percent of industry employment.

(D) Option Four—Require effluent limitations based upon BAT Option Two plus the end-of-pipe addition of granular activated carbon (GAC) columns to control residual toxic organic pollutants remaining after biological treatment.

This option would ensure an advanced degree of toxic pollutant removal, including residues of dissolved high molecular weight organic compounds to estimated concentrations of less than 50 parts per billion (ppb). However, the most prevalent toxic organic pollutants found in this industry (phenol, toluene, benzene, and ethylbenzene) usually are much lower in the effluent from BPT treatment facilities than in the raw waste load to these treatment facilities. The highest value from a biological treatment system for organic toxics was 200 ppb benzene. The Agency projects that application of GAC after biological treatment would result in the removal of 2.1 pounds per day of toxic organic pollutants from the eight direct discharging plants.

Economic analysis indicates that compliance with this option would require 7 of the 8 direct dischargers to invest a total of \$15.7 million and incur

annualized cost of \$7.1 million. The costs may range 2.3 to 40.2 percent of sales. Costs up to 5 percent of sales may be passed on through price increases. The Agency projects that selection of this option may result in eight plant closures and a loss of 29 percent of industry employment.

(E) BAT Selection and Decision Criteria—EPA has selected Option Two as the basis for proposed BAT effluent limitations. This option was selected because it assures, through the continued application of biological treatment, adequate removals of the organic toxic pollutants of concern and, in addition, provides significant removal of the toxic pollutants which continue to be of concern in this industry (copper, nickel, and zinc) after application of BPT.

At-the-source limitations based on concentration rather than mass limitations was chosen because modification of the rosins and turpenes is a batch process with production dependent upon demand; dilution of the metal bearing waste stream prior to final discharge causing the final concentration to approach the detection limit; most plants would treat in-plant because of less expensive treatment; and varying dilutions between plants would require varying levels of treatment if the concentration limitations were applied at the end-of-pipe.

Although not required by the Act, a balancing of costs of the technology options weighed heavily in this decision (see Section IX of the Development Document for detailed discussion).

The Agency rejected Option Three because of the higher cost in comparison to the lower expected removals of toxic metallic pollutants. The Agency also rejected Option Four because of the high cost of activated carbon columns in comparison to the expected additional removals of toxic organic pollutants.

Because of the limited data base for metals removal in this industry, the Agency compared the results obtained by metals removal technology used in other industrial categories currently under study. While the technology is being used in some of the other categories to treat for the metals of interest here (i.e., Ferric Chloride Production Subcategory in the Inorganic Chemicals Point Source Category), most were rejected because the wastewaters were not characteristic of the type of wastewaters generated in the Gum and Wood industry. The Agency chose to use the numerical limitations from the Electroplating Category because many of the problems associated with treatment in this category (i.e., chelating

agents and the presence of oils) more closely resembled the wastewater characteristics from gum and wood chemicals processing.

#### XI. New Source Performance Standards

The basis for new source performance standards (NSPS) under section 306 of the Act is the best available demonstrated technology. New plants have the opportunity to design the best and most efficient gum and wood chemicals manufacturing processes and wastewater treatment technologies, and, therefore, Congress directed EPA to consider the best demonstrated process changes, in-plant controls, and end-of-pipe treatment technologies which reduce pollution to the maximum extent feasible. EPA considered the four options previously described in the Section X BAT Effluent Limitations for selection of NSPS technology.

**NSPS Selection and Decision Criteria**—EPA has selected Option Two as described in Section X as the basis for proposed new source performance standards because it provides acceptable control of conventional pollutants and the maximum feasible removal of toxic pollutants of concern. The Agency rejected Option One because that treatment scheme does not address the removal of toxic metal pollutants. Option Three was rejected because of the lower removal rate and higher cost in comparison to Option Two. Option Four would change the rate of entry into this industry and would slow the rate of industry growth.

#### XII. Pretreatment Standards for Existing Sources (PSES)

Section 307(b) of the Act requires EPA to promulgate pretreatment standards for existing sources (PSES), which must be achieved within three years of promulgation. PSES are designed to prevent the discharge of pollutants which pass through, interfere with, or are otherwise incompatible with the operation of POTWs. The legislative history of the 1977 Act indicates that pretreatment standards are to be technology-based, analogous to the best available technology for removal of toxic pollutants.

(A) Option One—Do not regulate. The data base indicates that levels of organic toxic pollutants expected to be discharged range from below the detection limit to 19 mg/l. These levels of organic toxic pollutants can be readily removed in a POTW without incompatibility or pass-through. However, two subcategories, Sulfate Turpentine and Rosin-based Derivatives, use processes which involve metals as catalysts. These

metals are present in the wastewater from some plants which discharge to POTW's. Conventional POTW treatment would fail to remove the metals.

No costs or economic impacts will result from selection of this option.

#### (B) Option Two—

(a) Do not require specific pretreatment standards for the two subcategories (Wood Rosin and Tall Oil) that discharge only conventional pollutants and organic toxic pollutants. As noted above, the data available indicate that the conventional pollutants and organic toxic pollutants discharged by these subcategories can be removed in a POTW without incompatibility or pass-through.

(b) Require specific pretreatment standards for those subcategories (Sulfate Turpentine and Rosin-based Derivatives) that generate metallic bearing wastewater. Application of metals removal at-the-source of the pollutants can remove substantial quantities of the metals generated by these subcategories. EPA estimates that application of metals removal at-the-source would result in the removal of 11.1 pounds per day of copper (73.5 percent) and 2.0 pounds per day of nickel (39 percent) from two sulfate turpentine plants (one plant has technology in-place) and 136.2 pounds per day of zinc (96 percent) from three rosin-based derivatives plants.

Economic analysis indicates that compliance with this option would require 4 of the 12 indirect dischargers to invest a total of \$258 thousand and incur annualized costs of \$521 thousand. These costs may effect minimal price increases. The Agency projects that selection of this option will not result in any plant closure or unemployment.

#### (C) Option Three—

(a) Do not require specific pretreatment standards for the two subcategories (Wood Rosin and Tall Oil) that discharge only conventional pollutants and organic toxic pollutants.

(b) Require specific pretreatment standards for those subcategories (Sulfate Turpentine and Rosin-based derivatives) that generate metallic bearing wastewater. Application of metals removal at the end-of-pipe can remove some of the metals generated by these subcategories. EPA estimates that application of metals removal at the end-of-pipe would result in the removal of 7.6 pounds per day of copper (72.5 percent) and no nickel from two sulfate turpentine plants and 38.7 pounds per day of copper (72.5 percent) and no nickel from two sulfate turpentine plants and 38.7 pounds per day of zinc (94.5 percent) from three rosin-based derivatives plants.

Economic analysis indicates that compliance with this option would require four of the twelve indirect dischargers to invest a total of \$368 thousand and incur annualized costs of \$958.6 thousand. These costs may effect minimal price increases. The Agency projects that selection of this option will not result in any plant closures or unemployment.

(D) Selection of Pretreatment Technology and Decision Criteria—EPA has selected Option Two as the technology basis for proposing pretreatment standards for existing sources. This option will ensure removal of the bulk of the zinc, nickel, and copper at the industrial site. The Agency has selected Option Two because at-the-source metals removal provides for more removal of the metals of concern at less cost. In selecting this option, EPA does not preclude the imposition of more stringent standards by a POTW as needed to ensure compliance by the POTW with its NPDES permit.

#### XIII. Pretreatment Standards for New Sources

Section 307(c) of the Act requires EPA to promulgate pretreatment standards for new sources (PSNS) at the same time that it promulgates NSPS. New indirect dischargers, like new direct dischargers, have the opportunity to incorporate the best available demonstrated technologies including process changes, in-plant controls, and end-of-pipe treatment technologies, and to use plant site selection to ensure adequate treatment system installation.

The Agency evaluated the same options for new discharges to POTW's as were evaluated for existing discharges to POTW's.

**Selection of New Source Pretreatment Technology and Decision Criteria**—EPA has selected OPTION TWO as the technology basis for proposed pretreatment standards for new sources. This option will provide the removal of the heavy metals at-the-source for greater efficiency of removal at less cost. In selecting this option, EPA does not preclude the imposition of more stringent standards by a POTW as needed to ensure compliance by the POTW with its NPDES Permit.

#### XIV. Regulated Pollutants

The basis upon which the controlled pollutants were selected, as well as the general nature and environmental effects of these pollutants, is set out in Section VI of the Development Document. Some of these pollutants are designated as toxic under section 307(a) of the Act, and no evidence has been

found to warrant removal of any pollutant from the toxics list.

#### A. BPT

The pollutants in the sulfate turpentine subcategory controlled by this regulation include the same pollutants as those controlled by the previously promulgated regulations for the other subcategories, specifically BOD<sub>5</sub>, TSS, and pH. The discharge of these pollutants is controlled by maximum monthly average and maximum daily mass effluent limitations (pounds per 1,000 pounds of processed material), which are calculated by multiplying raw waste loads concentrations from one of the two stand-alone sulfate turpentine plants, average flow from the sampling period, treatability performance data from the 1976 regulations, and variability factors from the petroleum refining category.

#### B. BCT

As noted in the section of the preamble entitled BCT Effluent Limitations, EPA identified no additional reasonably available technologies either in the Gum and Wood Chemicals Industry or transferrable from other industrial categories for control of the conventional pollutants. Therefore, BCT is proposed at the same level as BPT.

#### C. BAT and NSPS

Appendix D is a list of toxic pollutants which were found in treated effluents at more than two plants and in concentrations greater than available analytical detection limits. EPA concludes that the organic toxic pollutants will be effectively controlled by biological treatment as exemplified by activated sludge or aerated lagoons even though the organic toxics are not expressly regulated by numerical limitations.

(1) Toxic Pollutants—the toxic pollutants expressly controlled by BAT and NSPS are copper, nickel, and zinc which are subject to numerical limitations expressed as maximum concentrations at the source of the metal bearing wastewater. These pollutants are controlled because of their use in the processing of turpenes and rosins.

#### D. PSES and PSNS

The pollutants controlled by proposed PSES and PSNS include copper, nickel, and zinc. EPA is limiting these pollutants because they may pass through POTW's and because these pollutants may interfere with biological treatment. Recent studies have shown that these metals may concentrate in the sludge at activated sludge plants and interfere with proper operation of anaerobic digestion. The PSES and PSNS effluent limitations are expressed

as maximum monthly average and maximum day concentrations (mg/l).

At this time, the Agency has not identified any additional unit processes in use in this industry other than biological treatment for control of the organic toxic pollutants. Based upon the data available from biological treatment units in the industry, the organic toxic pollutants are removed by biological treatment to low levels and they do not interfere with biological treatment as used by POTW's.

#### XV. Pollutants and Subcategories Not Regulated

The Settlement Agreement contained provisions authorizing the exclusion from regulation, in certain instances, of toxic pollutants and industry subcategories. These provisions have been re-written in a Revised Settlement Agreement which was approved by the District Court for the District of Columbia on March 9, 1979.

Paragraph 8(a)(iii) of the Revised Settlement Agreement allows the Administrator to exclude from regulation toxic pollutants not detectable by section 304(h) analytical methods or other state-of-the-art methods. The toxic pollutants not detected and therefore excluded from regulation are listed in Appendix B to this notice.

While the Settlement Agreement required EPA to regulate the entire Gum and Wood Chemicals Industry listed under the U.S. Department of Commerce, Bureau of the Census, Standard Industrial Classification (SIC) code 2861, Paragraph 8(a)(iv) of the Revised Settlement Agreement authorizes EPA to exclude portions of the industry from regulation. The Agency first developed a profile of the total gum and wood chemicals industry. After this initial profile information was assembled and reviewed and screening samples from all subcategories except Char and Charcoal Briquets were collected and analyzed, the Agency concluded that three subcategories should be excluded from regulation because they either do not discharge process wastewater or they do not discharge significant quantities of process wastewater.

The Char and Charcoal Briquets subcategory produces its products by the thermal decomposition of raw wood. Seventy-seven potential plants were identified in the industry profile. Of the forty-five plants responding, none discharged process wastewater. BPT regulations promulgated May 18, 1976 require zero discharge of process wastewater. The Agency concludes, therefore, that additional effluent

guidelines or standards for this subcategory are unnecessary.

The Essential Oils subcategory currently consists of nine plants which extract cedarwood oil by steaming cedarwood sawdust in pressure retorts to remove the oil from the wood particles. The process wastewater from eight of the plants is self-contained by a lagoon or by spray irrigation. The ninth plant at full operation discharges approximately 15,000 gallons per day to a POTW. The Agency does not believe that national PSES for only one plant are either appropriate or necessary. No new sources are expected to enter the market because of low market demand and shortages of raw materials.

The Gum Rosin and Turpentine subcategory produces its products by the distillation of pine oleoresin which is obtained by exposing the sapwood of the pine tree. This subcategory consists of seven plants, of which six have achieved zero discharge through the use of evaporation/percolation lagoons. The seventh plant discharges approximately 2,300 gallons of gum rosin wastewater to a POTW. The Agency does not believe that national PSES for only one plant are either appropriate or necessary. No new sources are expected to enter the market and existing plants are expected to close within the next ten years for economic reasons.

#### XVI. Monitoring Requirements

The Agency intends to establish a regulation requiring permittees to conduct additional monitoring when they violate permit limitations on indicator pollutants. The provisions of such monitoring requirements will be specified for each permittee and may include analysis for some or all of the toxic pollutants or the use of biomonitoring techniques. The additional monitoring is designed to determine the cause of the violation, necessary corrective measures, and the identity and quantity of toxic pollutants discharged. Each violation will be evaluated on a case-by-case basis by the permitting authority to determine whether or not the additional monitoring contained in the permit is necessary.

The Agency's sampling data shows benzene, toluene, ethylbenzene, and phenol in the untreated gum and wood chemicals wastewater in the range of below the detection limit to 30 ppm. The data also reveal that BPT technology (i.e. efficient biological treatment) reduces each of these pollutants to concentrations of 200 ppb or less. At these levels, there is no known cost effective technology applicable on a nationally uniform basis. However, individual plants are likely to be able to

take corrective action (e.g. in-plant controls) if organic toxic residuals become excessive and contribute to problems in meeting BPT limitations. Accordingly, if the BOD5 limitation is violated, then the permitting authority may require that the permittee monitor the organic toxic pollutants otherwise controlled by the BPT technology.

#### XVII. Costs, Effluent Reduction Benefits, and Economic Impacts

Executive Order 12044 requires EPA and other agencies to perform regulatory analyses of certain regulations. (See 43 FR 12661 (March 23, 1978)). EPA's proposed regulations for implementing Executive Order 12044 require a regulatory analysis for major significant regulations involving annualized compliance costs of more than \$100 million or meeting other specified criteria. (See 43 FR 29891 (July 11, 1978)). Where these criteria are met, the proposed regulations require EPA to prepare a formal regulatory analysis, including an economic impact analysis and an evaluation of alternatives such as: (1) Alternative types of regulations, (2) alternative stringency levels, (3) alternative timing, and (4) alternative methods of ensuring compliance.

The proposed regulations for the gum and wood chemicals industry do not meet the proposed criteria for a formal regulatory analysis. Nonetheless, this proposed rulemaking satisfies the formal regulatory analysis requirements. While the Clean Water Act does not permit consideration of alternative timing or alternative methods of ensuring compliance, EPA has considered alternative stringency levels and alternative types or regulations, as discussed above. Moreover, the Agency has performed a detailed analysis of the economic impact of these proposed regulations.

EPA's economic impact assessment is set forth in *Economic Impact Analysis of Proposed Effluent Limitations Guidelines, New source Performance Standards and Pretreatment Standards for the Gum and Wood Chemicals Point source Category*. November 1979. This report details the investment and annualized costs for the industry as a whole and for model plants covered by the proposed gum and wood chemicals regulations. The data underlying the analysis were obtained from the Development Document, publicly available financial studies and surveys, and the results of EPA's economic survey program described under Data Gathering Efforts. The report assesses the impact of compliance costs in terms of plant closures, production changes, price changes, employment changes,

local community impacts, and balance of trade effects.

The methodology used in the economic analysis employs estimation of the profit reduction expected for plants currently operating in this industry assuming no cost pass-through. Compliance costs as a percent of sales revenue were estimated as a point of reference to qualitatively judge the possibility of recovering all or part of the compliance costs. The analysis was carried out for each of the 20 major plants operating in this industry affected by these regulations.

The decision criteria for plant closures are based on both compliance costs as a percent of estimated profits before taxes and compliance costs as a percent of sales revenue. Plants are projected to close if compliance costs are more than 50 percent of profits and more than 5 percent of sales. Even though the basis of competition for many of the products produced in this industry is price, and the industry is operating at relatively low capacity utilization rates, the trend to upgrading the value of products produced, the relative scarcity of raw materials, and the expected higher prices for competitive products based on petroleum derivatives make small price pass-through possible. It is expected that costs less than 5 percent of sales would be relatively easily recovered. The Agency projects that 7 of the 20 plants may be required to make pollution control expenditures to comply with the proposed effluent limitations. This estimate is based on a telephone survey of the industry which determined metallic catalyst usage at each plant. The Agency further estimates that the remaining plants will be able to meet the proposed limitations without additional expenditure.

The Agency estimates that the total investment costs for all the proposed regulations will approximate \$588.4 thousand, and that associated annualized costs (including interest, depreciation, operation and maintenance) will approximate \$1.22 million. Further, the Agency projects that the proposed regulations will not result in any plant closures, unemployment, or effects on production. It is not believed that the balance of trade will be affected at all. EPA believes that the rate of entry into this industry will not be affected by the proposed regulations. Diversion of capital from projects intended to upgrade products to higher value materials could reduce the long term potential for profit improvement in this industry. The costs, effluent reduction benefits, and economic impacts for each

proposed regulation are summarized below.

(A) BPT—There are two sulfate turpentine producing plants that discharge wastewater to the Nation's waters and are thus subject to proposed BPT limitations. EPA estimates that the proposed limitations will result in the removal of 70 and 80.3 pounds per day of BOD5 and TSS, respectively.

EPA estimates that compliance with proposed BPT limitations may require a total investment of \$104.5 thousand. Annualized costs may equal a total of \$183 thousand. EPA does not expect the proposed BPT requirements to result in any closures, job losses, production losses, community effects or balance of trade effects.

(A) BAT—There are 8 Gum and Wood Chemicals plants that discharge wastewater directly to the Nation's waters. Three of these plants currently modify rosins by use of zinc as a catalyst and thus subject to proposed BAT limitations. These limitations will result in the removal of approximately 44 pounds per day of zinc.

EPA estimates that compliance with proposed BAT limitations may require a total investment of \$225.6 thousand by these three plants, assuming BPT and proposed BPT for the Sulfate Turpentine subcategory are already in place. Annualized costs may equal a total of \$512 thousand. Costs of up to five percent of sales may be passed on through price increases. EPA does not expect the proposed BAT requirements to result in any closures, job losses, production losses, community effects or balance of trade effects.

(B) NSPS—There have been virtually no new plants constructed in this industry over the past 10 years. At the current projected rates of growth for this industry the Agency expects that little or no new plant construction will be experienced over the next five years. One tall oil fractionation plant has been announced to come on stream in 1980. Since this plant is relatively small (35,000 tons/year) and will discharge its wastewater to a pulp and paper mills treatment system, the Agency estimates that no additional capital investment or operating costs will be incurred.

In general the new source performance standards will have little short term impact on industry growth and plant construction or expansion plans but will raise the overall price levels required to encourage new capacity. However, as indicated above, little new plant capacity is needed to meet the industry growth projections.

(C) PSES—There are 12 plants that discharge process related wastewater to POTWs or other industrial wastewater

treatment systems. EPA estimates that the total investment costs for 4 of these plants to comply with the proposed PSES regulations will be approximately \$258.3 thousand. PSES annualized costs may equal \$521 thousand. Costs of up to five percent of sales may be passed on through price increases. EPA does not expect the proposed PSES requirements to result in any closures, job losses, production losses, community effects, or balance of trade effects.

(D) PSNS—As pointed out in connection with NSPS, there have been virtually no new plants constructed in this industry over the past 10 years and the Agency expects little or no new plant construction over the next five years.

In general the new source performance standards will have little short term impacts on industry growth and plant construction or expansion plans but will raise the overall price levels required to encourage new capacity. However, as indicated above, little new plant capacity is needed to meet the industry growth projections.

#### XVIII. Small Business Administration Financial Assistance

There are two Small Business Administration programs that may be important sources of funding for the Gum and Wood Chemicals Manufacturing Point Source Category. They are the SBA's Economic Injury Loan Program and Pollution Control Financing Guarantees.

Section 8 of the FWPCA authorizes the SBA, through its Economic Injury Loan Program, to make loans to assist any small business concern in effecting additions to or alterations in equipment, facilities, or methods of operation in order to meet water pollution control requirements under the Federal Water Pollution Control Act, if the concern is likely to suffer a substantial economic injury without such assistance. This program is open to small business firms as defined by the Small Business Administration. Loans can be made either directly by SBA or through a bank using an SBA guarantee. The interest on direct loans depends on the cost of money to the Federal government and is currently set at 7% percent. Loan repayment periods may extend up to thirty years depending on the ability of the firm to repay the loan and the useful life of the equipment. SBA loans made through banks are at somewhat higher interest rates. Firms in the Gum and Wood Chemicals Manufacturing Point Source Category may be eligible for direct or indirect SBA loans. For further details on this Federal loan program please contact: Coordinator—Mr.

Sheldon Sacks, Environmental Protection Agency, Financial Assistance Coordinator, Office of Analysis & Evaluation (WH-586), 401 M Street SW., Washington, D.C. 20460, Telephone: (202) 755-3624.

In addition, the Small Business Investment Act, as amended by Public Law 94-305, authorizes SBA to guarantee the payments on qualified contracts entered into by eligible small businesses to acquire needed pollution facilities when the financing is provided through taxable and tax-exempt revenue or pollution control bonds. This program is open to all eligible small businesses. Bond financing with SBA's guarantee of the payments make available long term (20-25 years), low interest (usually 5% to 7%) financing to small businesses on the same basis as that available to larger national or international companies. For further details on this program write to SBA, Pollution Control Financing Division, Office of Special Guarantees, 1815 North Lynn Street, Magazine Building, Rosslyn, Virginia 22209 (703) 235-2900.

#### XIX. Nonwater Quality Aspects of Pollution Control

The elimination or reduction of one form of pollution may aggravate other environmental problems. Therefore, Sections 304(b) and 306 of the Act require EPA to consider the non-water quality environmental impacts (including energy requirements) of certain regulations. In compliance with these provisions, EPA has considered the effect of these regulations on air pollution, solid waste generation, water scarcity, and energy consumption. While it is difficult to balance pollution problems against each other and against energy utilization, EPA is proposing regulations which it believes best serve often competing national goals.

The following are the non-water quality environmental impacts (including energy requirements) associated with the proposed regulations:

A. Air Pollution—Imposition of BPT, BCT, BAT, NSPS, PSES and PSNS will not create any substantial increase in air pollution problems, although some increase in hydrocarbon content may occur if increased aeration in the biological treatment systems causes additional stripping of volatile organic compounds. Metals removal technology is accomplished in the aqueous phase and no releases of metals or hydrocarbons should result.

B. Solid Waste—The major non-water quality aspect of the proposed regulation will be the generation of metal sludges from the metals removal

processes required for the rosin derivatives and sulfate turpentine operation. These sludges will contain high concentrations of the inorganic toxic pollutants copper and nickel or zinc. While the Agency has proposed certain solid wastes as hazardous (43 FR 58946, 58959 December 18, 1978) none of the wastes from the gum and wood chemicals industry are included. Disposal of these sludges may, however, become subject to RCRA regulation as finally promulgated.

Additional sludges may be generated as the result of the proposed BPT regulations for sulfate turpentine. These biological sludges usually accumulate in the aerated lagoons and settling ponds and must be dredged and disposed of periodically.

The Agency estimates that up to 500 pounds/day (668 gallons/day) of metal bearing and biological sludges may be generated as a result of these regulations. Hauling costs of \$0.12 per gallon in 1977 dollars was used in estimating the disposal costs included in the annual operating costs.

C. Consumptive Water Loss—Some minor water loss may occur as a result of these regulations. Water becomes entrained in the hydroxide flocs generated in the metals precipitation units and would be lost to landfill. Some evaporative losses may occur as a result of increased aeration for biological treatment. However, the quantities of water involved are not significant and the industry is located in areas with sufficient water supplies.

D. Energy Requirements—Achievement of the proposed regulations will require additional energy use for pumps at the metals precipitation units for BAT and some additional aerators for BPT sulfate turpentine. Energy cost estimates are reflected in the operation and maintenance costs in the Development Document. EPA estimates electrical energy consumption will increase less than 420,000 kilowatt hours per year.

#### XX. Best Management Practices

Section 304(e) of the Clean Water Act authorizes the Administrator to prescribe "best management practices" ("BMPs"), described under Authority and Background. EPA intends to develop BMPs which: (1) Apply to all industrial sites; (2) Apply to a designated industrial category; and (3) offer guidance to permit authorities in establishing BMPs required by unique circumstances at a given plant.

EPA is considering promulgating BMP's specific to the Gum and Wood Chemicals Industry. A separate study of

the seven subcategories will be initiated at a later date.

### XXI. Upset and Bypass Provisions

An issue of recurrent concern has been whether industry guidelines should include provisions authorizing noncompliance with effluent limitations during periods of "upset" or "bypass." An upset, sometimes called an "excursion," is unintentional noncompliance occurring for reasons beyond the reasonable control of the permittee. It has been argued that an upset provision in EPA's effluent limitations guidelines is necessary because such upsets will inevitably occur due to limitations in even properly operated control equipment. Because technology-based limitations are to require only what technology can achieve, it is claimed that liability for such situations is improper. When confronted with this issue, courts have divided on the question of whether an explicit upset or excursion exemption is necessary or whether upset or excursion incidents may be handled through EPA's exercise of enforcement discretion. Compare *Marathon Oil Co. v. EPA*, 564 F. 2d 1253 (9th Cir. 1977) with *Weyerhaeuser v. Costle*, *supra*. See also *American Petroleum Institute v. EPA*, 540 F. 2d 1023 (10th Cir. 1976); *CPC International, Inc. v. Train*, 540 F. 2d 1320 (8th Cir. 1976); *FMC Corp. v. Train*, 539 F. 2d 973 (4th Cir. 1976).

While an upset is an unintentional episode during which effluent limits are exceeded, a bypass is an act of intentional noncompliance during which waste treatment facilities are circumvented in emergency situations. Bypass provisions have, in the past, been included in NPDES permits.

EPA has determined that both upset and bypass provisions should be included in NPDES permits, and has recently promulgated NPDES regulations which include upset and bypass permit provisions. See 44 FR 32905 (June 7, 1979). The upset provision establishes an upset as an affirmative defense to prosecution for violation of technology-based effluent limitations. The bypass provision authorizes bypassing to prevent loss of life, personal injury or severe property damage. Consequently, although permittees in the Gum and Wood Chemicals Industry will be entitled to upset and bypass provisions in NPDES permits, these proposed regulations do not address these issues.

### XXII. Variances and Modifications

Upon the promulgation of final regulations, the numerical effluent limitations for the appropriate subcategory must be applied in all

Federal and state NPDES permits thereafter issued to Gum and Wood Chemicals direct dischargers. In addition, on promulgation, the pretreatment limitations are directly applicable to indirect dischargers.

For the BPT effluent limitations, the only exception to the binding limitations is EPA's "fundamentally different factors" variance. See *E. I. duPont de Nemours and Co. v. Train*, 430 U.S. 112 (1977); *Weyerhaeuser Co. v. Costle*, *supra*. This variance recognizes factors concerning a particular discharger which are fundamentally different from the factors considered in the industry-wide rulemaking. Although this variance clause was set forth in EPA's 1973-1976 industry regulations, it now will be included only in the NPDES regulations. (See 44 FR 32854, 32950 (June 7, 1979) for the text and explanation of the "fundamentally different factors" variance).

The BAT limitations in these regulations are subject to EPA's "fundamentally different factors" variance provision. The Act also provides that BAT limitations for conventional and non-conventional pollutants are subject to modifications under sections 301(c) and 301(g) of the Act. According to section 301(j)(1)(B), applications for those modifications must be filed within 270 days after promulgation of final effluent limitations guidelines. See 43 FR 40859 (Sept. 13, 1978). Under section 301(1) of the Act these statutory modifications are not applicable to toxic pollutants. Likewise, limitations on conventional and non-conventional pollutants used as "indicators" for toxic pollutants are not subject to section 301(c) or section 301(g) modifications, unless the discharger demonstrates that a waste stream does not contain any of the toxic pollutants for which the "indicator" was designed to demonstrate removal.

Pretreatment standards for existing sources are subject to the "fundamentally different factors" variance and credits for pollutants removed by POTWs. See 40 CFR 403.7, 403.13; 43 FR 27736 (June 26, 1978). Pretreatment standards for new sources are subject only to the credits provision in 40 CFR 403.7. New source performance standards are not subject to EPA's "fundamentally different factors" variance or any statutory or regulatory modifications. See *duPont v. Train*, *supra*.

### XXIII. Relationship to NPDES Permits

The BAT limitations for the Rosin-based Derivatives and Sulfate Turpentine subcategories and BPT, BCT, and NSPS limitations for four

subcategories in these regulations will be applied to individual Gum and Wood Chemicals Industry plants through NPDES permits issued by EPA or approved state agencies, under section 402 of the Act. The preceding section of this preamble discussed the binding effect of these regulations on NPDES permits, except to the extent that variances are expressly authorized. This section describes several other aspects of the interaction of these regulations and NPDES permits.

One matter which has been the subject of differing judicial views is the scope of NPDES permit proceedings in the absence of effluent limitations guidelines and standards. Under the NPDES regulations, states and EPA regions issuing NPDES permits prior to promulgation of these regulations must include a "reopener clause," providing for permits to be modified to incorporate "toxics" regulations when they are promulgated. See 44 FR 32906 (June 7, 1979). To avoid cumbersome modification procedures, EPA has adopted a policy of issuing short-term permits, with a view toward issuing long-term permits only after promulgation of these and other BAT regulations. The Agency has published rules designed to encourage states to do the same. See 43 FR 58066 (December 11, 1978). However, in the event that EPA finds it necessary to issue long-term permits prior to promulgation of BAT regulations, EPA and states will follow essentially the same procedures utilized in many cases of initial permit issuance. The permit issuer will assess the appropriate technology levels and limitations on a case-by-case basis, on consideration of the statutory factors. See *U.S. Steel Corp. v. Train*, 556 F. 2d 822, 844, 854 (7th Cir. 1977). In these situations, EPA documents and draft documents (including these proposed regulations and supporting documents) are relevant evidence, but not binding, in NPDES permit proceedings. See 44 FR 32854 (June 7, 1979).

Another question is the effect of these regulations on the powers of NPDES permit issuing authorities. The promulgation of these regulations does not restrict the power of any permit-issuing authority to act in any manner consistent with law or these or any other EPA regulations, guidelines, or policy. For example, the fact that these regulations do not control a particular pollutant does not preclude the permit issuer from limiting such pollutant on a case-by-case basis, when it is necessary to carry out the purposes of the Act. In addition, to the extent that state water quality standards or other provisions of

state of Federal law require limitation of pollutants not covered by these regulations (or require more stringent limitations on covered pollutants, such limitations *must* be applied by the permit-issuing authority.

One additional topic that warrants discussion is the operation of EPA's NPDES enforcement program, of which many aspects have been considered in developing these regulations. The Agency wishes to emphasize that although the Clean Water Act is a strict liability statute, the initiation of enforcement proceedings by EPA is discretionary. EPA has exercised and intends to exercise that discretion in a manner which recognizes and promotes good faith compliance efforts and conserves enforcement resources for those who fail to make good faith efforts to comply with the Act.

#### XXIV. Summary of Public Participation

On January 19, 1979, the Agency circulated for public comment a draft technical report to a number of interested parties. The report was made available to members of the Pulp Chemicals Association, the Natural Resources Defense Council, the U.S. Department of Commerce, EPA Regional Offices, and some states that have authority to issue National Pollution Discharge Elimination System (NPDES) permits. This document included the technical information that served as the basis for the regulations proposed at this time, but did not make recommendations or present conclusions. Reviewers of the technical report were asked to forward to the Agency their written comments by March 9, 1979; they also were invited to a meeting March 23, 1979 where they could discuss their comments with the technical and legal staffs of the Agency. However, since there were no requests for time for oral presentations, the meeting was cancelled. A brief summary of the written comments is presented here.

Comment: Activated carbon was identified as a candidate treatment technology because of its ability to remove toxic pollutants which may remain after biological treatment. Since BPT treatment apparently reduces the organic toxic pollutants to fairly low levels, should activated carbon be required?

Response: The data show that biological treatment results in substantial reductions of organic toxic pollutants. Also, the high cost of activated carbon treatment for organic toxic pollutants makes this type of treatment expensive for this industry.

Activated carbon will not be the basis for BAT or NSPS.

Comment: Regulations should be limited to periodic testing of only those substances which have been demonstrated to be present in significant concentrations at any given location rather than monitoring for the full 129 toxic pollutants.

Response: The proposed regulations identify certain pollutants and identify effluent limitations for those pollutants. The regulations do not require monitoring for the full 129 toxic pollutants. However, this does not preclude more stringent effluent limits or more stringent monitoring requirements at the option of the NPDES authority, as required to carry out the Act.

Comment: The narrative description and the results of the sample analyses suggest that the sulfate turpentine subcategory could be further subdivided as follows:

- a. Sulfate turpentine
- b. Sulfate turpentine/flavors and fragrances
- c. Sulfate turpentine/other

Response: The proposed regulations do not subdivide the sulfate turpentine subcategory because of the small number of plants (seven) and because the Agency believes it has addressed the proposed subcategorization by basing the proposed sulfate turpentine guidelines on raw waste load data from a plant producing sulfate turpentine/ flavor and fragrances. This segment utilizes most of the processes of the other two proposed subcategories plus the use of metal catalyst.

Comment: The narrative description of the sampling program in Section III of the contractor's technical report indicates that the screening and verification samplings were two distinct efforts when in fact this was not the case at some plants.

Response: The description of the sampling program in Section III of the Development Document to accompany these proposed regulations more fully explains the methodology used in screening and verification sampling.

Comment: If samples were collected on three consecutive days, the presence of a pollutant in one sample but not in the other two raises the question of whether the pollutant actually occurred, especially if any type of equalization is employed.

Response: In only three cases was a toxic pollutant found on one day during the three-day sampling where it was not also present in the other two samples. In each case, discussions with plant personnel have not revealed any source for the pollutant or any reason for its presence.

Comment: The presence of methylene chloride in the water samples was questioned, since it is neither used in the plant nor present in the raw material, but is a common solvent found in chemical laboratories.

Response: The Agency has confirmed that several research and development laboratories located on plant sites maintain stocks of methylene chloride. Methylene chloride also is required by the EPA sampling methods as a solvent rinse for some of the sample fraction containers. Because of the potential for contamination inherent in the sampling methodology, methylene chloride is not being considered for regulation.

However, two plants which were not sampled do use methylene chloride as a process solvent. Methylene chloride is a volatile organic toxic pollutant which should be reduced to the same low levels by biological treatment as benzene, toluene, and ethylbenzene.

Comment: Some participants questioned the results of the BOD5 and BOD10 analyses since some BOD10 results were lower than the BOD5 results for the same samples, and significant variances were noted between the sampling results and individual plant results.

Response: The standard method for analysis of BOD requires that the sample must be diluted such that biochemical oxidation of the organics present causes depletion of the available oxygen within the range of 2 to 6 mg/l. In some cases where the dilution required was one part waste to 25 parts dilution water or higher, errors resulted which gave erroneous results. The BOD data, while used to give an indication of the magnitude of the BOD in the waste stream, was not used in determining any of the numerical limitations proposed here.

Comment: One participant questioned the results of the analyses for phenol in light of the fact that phenol by the GC/MS method was greater than total phenol by "Standard Methods." Total phenol by "Standard Methods" should be greater than phenol by GC/MS.

Response: While total phenols by "Standard Methods" should yield higher results than phenols by GC/MS, there are a number of compounds or agents which may interfere with the "Standard Methods" total phenols test. While "Standard Methods" describes several methods for eliminating these interferences, it also notes that "some of the treatment procedures used for removal of interferences before analysis may result in an unavoidable loss of certain types of phenols." While attempting to eliminate interferences suspected present in gum and wood

chemicals waste streams, such a loss may have occurred.

**Comment:** The contractor's report identified several means of oxidizing phenols. The data presented by the contractor indicate that phenols may be reduced by biological treatment. Is biological treatment an acceptable alternative?

**Response:** Yes. Biological treatment appears to remove the organic toxics of concern here. However, this treatment technology does not preclude the selection of other wastewater treatment alternatives which provide equivalent or better levels of treatment.

**Comment:** The industry has limited experience with metals removal by pH adjustment. Two problems are apparent. First, metal hydroxides are difficult flocs to settle or filter, and second, the waste cake or slurry may be classified as hazardous, thus affecting the cost of disposal. Expansion of the discussion of technologies available and the costs basis would be helpful.

**Response:** The discussion of metals removal in the Development Document has been expanded. Removal of metals by pH adjustment still appears to be the most cost-effective form of treatment. The hydroxide flocs developed by this form of treatment may be difficult to settle or filter by themselves, but flocculant aids or filtering aids are available and should enhance removals. The waste cake or slurry may be classified as hazardous. Determination of whether the waste cake or slurry is hazardous cannot be made, since the regulations for hazardous substances have not been promulgated. The costs for transportation of the waste cake or slurry are based upon 1977 costs of hauling. An estimate of the cost which might be incurred if the waste is hazardous is contained in Section XIX.

#### XXV. Solicitation of Comments

EPA invites and encourages public participation in this rulemaking. The Agency asks that any deficiencies in the record of this proposal be specifically addressed and that suggested revisions or corrections be supported by data.

EPA is particularly interested in receiving additional comments and information on the following issues:

1. The Agency is proposing treatment for metals at the source for the Sulfate Turpentine and Rosin-Based Derivatives subcategories. Because the processes which utilize metals are operated intermittently and the resulting waste streams are generally small in comparison to total plant flow, the Agency is proposing application of numerical effluent guidelines limitations at the metals source waste stream. The

Agency solicits comments on this regulatory approach to control of toxic pollutants.

2. The Agency requests that reviewers of this proposal point out errors in data, tabulation, possible misinterpretation of industry submitted data, or any possible error in the logic of these proposed rules. Comments of this nature should be documented with copies of the originally submitted information, together with either a discussion explaining the participants' interpretation of the data or a discussion of the participants' logical approach to the rulemaking.

3. The Agency's sampling data shows benzene, toluene, ethylbenzene, and phenol in wastewater from Gum and Wood Chemicals plants. BPT technology reduces the concentration of these pollutants to 200 ppb or less. Accordingly, the Agency is proposing that if the BPT BOD5 limitation is violated, the permitting authority may require that the permittee monitor the organic toxic pollutants otherwise controlled by the BPT technology. EPA requests the submission of data which either support or refute its belief that when BOD5 is removed to low concentrations, the concentrations of organic toxic pollutants are substantially less than when the concentration of BOD5 is high.

4. Characterization of the nature and amount of sludges generated by gum and wood chemicals plants and the costs of sludge handling and disposal are important to these regulations and regulations being developed by EPA's Office of Solid Waste under authority of the Resource Conservation and Recovery Act (RCRA). The Agency solicits additional data concerning the quantities, pollutant content, and handling and disposal costs for all solid wastes.

5. The cost of control technology is a significant issue. In order to perform a meaningful comparison of EPA cost data and industry cost data, EPA requests detailed information on salient design and operating characteristics; actual installed cost (not estimates of replacement costs) for each unit treatment operation or piece of equipment (e.g., screens, clarifiers, aeration equipment, etc.); the date of installation and the amount of installation labor provided by plant personnel; and the actual cost for operation and maintenance, broken down into units of usage and cost for energy (kilowatt hours or equivalent), chemicals, and labor (work-years or equivalent).

6. EPA has obtained from the industry a substantial data base for the control

and treatment technologies which serve as the basis for the proposed regulations. Plants which have not submitted data or engineering studies other than those already submitted are requested to forward these data to EPA. These data should be individual data points, not averages or other summary data, including flow, production, and all pollutant parameters for which analyses were run. Please submit any qualifications to the data, such as descriptions of facility design, operating procedures, and upset problems during specified periods.

7. EPA requests that POTWs which receive wastewaters from gum and wood chemicals plants submit data which would document the occurrence of interference with collection system and treatment plant operations, permit violations, sludge disposal difficulties, or other incidents attributable to the pollutants contained in gum and wood chemicals plant's discharges to POTWs.

Dated: November 20, 1979.

Douglas M. Costle,  
Administrator.

#### XXVI. Appendices

*Appendix A—Abbreviations, Acronyms and Other Terms Used in This Notice*

Act

The Clean Water Act.

Agency

The U.S. Environmental Protection Agency.

At-the-source

At a reaction kettle or other designated site where intermediates are modified by use of a metallic catalyst.

BAT

The best available technology economically achievable, under section 301(b)(2)(A) of the Act.

BCT

The best conventional pollutant control technology, under section 301(b)(2)(E) of the Act.

BMP

Best management practices, under section 304(e) of the Act.

BPT

The best practicable control technology currently available, under section 301(b)(1) of the Act.

Clean Water Act

The Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 et seq.), as amended by the Clean Water Act of 1977 (Pub. L. 95-217).

**Direct discharger**

A facility which discharges or may discharge pollutants into waters of the United States.

**Indirect Discharger**

A facility which discharges or may discharge pollutants into a publicly owned treatment works.

**NPDES**

National Pollutant Discharge Elimination System, under section 402 of the Act.

**NSPS**

New source performance standards, under section 306 of the Act.\*

**POTW**

Publicly owned treatment works.

**PSES**

Pretreatment standards for existing sources of indirect discharges, under section 307(b) of the Act.

**PSNS**

Pretreatment standards for new sources of direct discharges, under section 307(b) and (c) of the Act.

**RCRA**

Resource Conservation and Recovery Act of 1976, Amendments to Solid Waste Disposal Act (Public Law 94-580).

**Appendix B—Toxic Pollutants not Detected in Treated Effluents***Compound name*

1. acenaphthene\*
2. acrolein\*
3. acrylonitrile\*
4. benzidine\*
5. carbon tetrachloride (tetrachloromethane)\*
6. chlorobenzene
7. 1,2,4-trichlorobenzene
8. hexachlorobenzene
9. 1,2-dichloroethane
10. hexachloroethane
11. 1,1-dichloroethane
12. 1,1,2-trichloroethane
13. 1,1,2,2-tetrachloroethane
14. bis(chloromethyl) ether
15. bis(2-chloroethyl) ether
16. 2-chloroethyl vinyl ether (mixed)
17. 2-chloronaphthalene
18. 2,4,6-trichlorophenol
19. parachlorometa cresol
20. 2-chlorophenol\*
21. 1,2-dichlorobenzene
22. 1,3-dichlorobenzene
23. 1,4-dichlorobenzene
24. 3,3'-dichlorobenzidine
25. 1,1-dichloroethylene
26. 1,2-trans-dichloroethylene
27. 2,4-dichlorophenol\*
28. 1,2-dichloropropane

\*Specific compounds and chemical classes as listed in the Consent Decree.

29. 1,2-dichloropropylene (1,2-dichloropropene)
30. 2,4-dimethylphenol\*
31. 2,4-dinitrotoluene
32. 2,6-dinitrotoluene
33. 1,2-diphenylhydrazine\*
34. fluoranthene\*
35. 4-chlorophenyl phenyl ether
36. 4-bromophenyl phenyl ether
37. bis(2-chloroisopropyl) ether
38. bis(2-chloroethoxy) methane
39. methyl chloride (chloromethane)
40. methyl bromide (bromomethane)
41. bromoform (tribromomethane)
42. dichlorobromomethane
43. trichlorofluoromethane
44. dichlorodifluoromethane
45. chlorodibromomethane
46. hexachlorobutadiene\*
47. hexachlorocyclopentadiene\*
48. isophorone\*
49. nitrobenzene\*
50. 2-nitrophenol
51. 4-nitrophenol
52. 2,4-dinitrophenol\*
53. 4,6-dinitro-o-cresol
54. N-nitrosodimethylamine
55. N-nitrosodiphenylamine
56. N-nitrosodi-n-propylamine
57. pentachlorophenol\*
58. bis(2-ethylhexyl) phthalate
59. butyl benzyl phthalate
60. di-n-butyl phthalate
61. di-n-octyl phthalate
62. diethyl phthalate
63. dimethyl phthalate
64. benzo(a)anthracene (1,2-benzanthracene)
65. benzo(a)pyrene (3,4-benzopyrene)
66. 3,4-benzofluoranthene
67. benzo(k)fluoranthene (11,12-benzofluoranthene)
68. chrysene
69. acenaphthylene
70. anthracene
71. benzo(ghi)perylene (1,12-benzoperylene)
72. fluorene
73. phenanthrene
74. dibenzo(a,h)anthracene (1,2,5,6-dibenzanthracene)
75. indeno (1,2,3-cd)pyrene (2,3-phenyleneperylene)
76. pyrene
77. tetrachloroethylene\*
78. trichloroethylene\*
79. vinyl chloride (chloroethylene)\*
80. aldrin\*
81. dieldrin\*
82. chlordane (technical mixture and metabolites)\*
83. 4,4'-DDT
84. 4,4'-DDE (p,p'-DDX)
85. 4,4'-DDD (p,p'-TDE)
86. a-endosulfan-Alpha
87. b-endosulfan-Beta
88. endosulfan sulfate
89. endrin
90. endrin aldehyde
91. heptachlor
92. heptachlor epoxide
93. a-BHC-Alpha
94. b-BHC-Beta
95. r-BHC(lindane)-Gamma
96. g-BHC-Delta
97. PCB-1242(Arochlor 1242)
98. PCB-1254(Arochlor 1254)
99. PCB-1221(Arochlor 1221)

100. PCB-1232(Arochlor 1232)
101. PCB-1248(Arochlor 1248)
102. PCB-1260(Arochlor 1260)
103. PCB-1016(Arochlor 1016)
104. toxaphene\*
105. antimony (total)\*
106. asbestos (fibrous)\*
107. beryllium (total)\*
108. cyanide (total)\*
109. mercury (total)\*
110. silver (total)\*
111. thallium (total)\*
112. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)<sup>1</sup>

**Appendix C—Toxic Pollutants Detected in Final Effluent Samples**

1. benzene\*
2. 1,1,1-trichloroethane
3. chloroethane
4. chloroform (trichloromethane)\*
5. ethylbenzene\*
6. naphthalene\*
7. phenol\*
8. toluene\*
9. methylene chloride (dichloromethane)
10. arsenic (total)\*
11. cadmium (total)\*
12. chromium (total)\*
13. copper (total)\*
14. lead (total)\*
15. nickel (total)\*
16. selenium (total)\*
17. zinc (total)\*

40 CFR Part 454 is revised to read as follows:

**PART 454—GUM AND WOOD CHEMICALS INDUSTRY POINT SOURCE CATEGORY****General Provisions***Sec.*

- 454.01 Applicability.
- 454.02 Definitions.
- 454.03 Monitoring requirements.

**Subpart A—Char and Charcoal Briquets Subcategory**

- 454.10 Applicability; description of the char and charcoal briquets subcategory.
- 454.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 454.13 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 454.14 Effluent limitations representing the degree of effluent reduction attainable by the application of best conventional pollutant control technology (BCT).
- 454.15 New source performance standards (NSPS).
- 454.16 Pretreatment standards for new sources (PSNS).

<sup>1</sup> This compound was specifically listed in the Consent Decree. Because of the extreme toxicity (TCDD), EPA recommends that laboratories not acquire analytical standard for this compound.

\*Specific compounds and chemical classes as listed in the Consent Decree.

## Sec.

- 454.17 Pretreatment standards for existing sources (PSES).

**Subpart B—Gum Rosin and Turpentine Subcategory**

- 454.20 Applicability; description of the gum rosin and turpentine subcategory.
- 454.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 454.23 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 454.24 Effluent limitations representing the degree of effluent reduction attainable by the application of best conventional pollutant control technology (BCT).
- 454.25 New source performance standards (NSPS).
- 454.26 Pretreatment standards for new sources (PSNS).
- 454.27 Pretreatment standards for existing sources (PSES).

**Subpart C—Wood Rosin, Turpentine, and Pine Oil Subcategory**

- 454.30 Applicability; description of the wood rosin, turpentine, and pine oil subcategory.
- 454.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 454.33 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 454.34 Effluent limitations representing the degree of effluent reduction attainable by the application of best conventional pollutant control technology (BCT).
- 454.35 New source performance standards (NSPS).
- 454.36 Pretreatment standards for new sources (PSNS).
- 454.37 Pretreatment standards for existing sources (PSES).

**Subpart D—Tall Oil Rosin, Pitch, and Fatty Acids Subcategory**

- 454.40 Applicability; description of the tall oil rosin, pitch, and fatty acids subcategory.
- 454.42 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 454.43 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 454.44 Effluent limitations representing the degree of effluent reduction attainable by the application of best conventional pollutant control technology (BCT).
- 454.45 New source performance standards (NSPS).
- 454.46 Pretreatment standards for new sources (PSNS).

## Sec.

- 454.47 Pretreatment standards for existing sources (PSES).

**Subpart E—Essential Oils Subcategory**

- 454.50 Applicability; description of the essential oils acids subcategory.
- 454.52 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 454.53 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 454.54 Effluent limitations representing the degree of effluent reduction attainable by the application of best conventional pollutant control technology (BCT).
- 454.55 New source performance standards (NSPS).
- 454.56 Pretreatment standards for new sources (PSNS).
- 454.57 Pretreatment standards for existing sources (PSES).

**Subpart F—Rosin-Based Derivatives Subcategory**

- 454.60 Applicability; description of the rosin-based derivatives subcategory.
- 454.62 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 454.63 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 454.64 Effluent limitations representing the degree of effluent reduction attainable by the application of best conventional pollutant control technology (BCT).
- 454.65 New source performance standards (NSPS).
- 454.66 Pretreatment standards for new sources (PSNS).
- 454.67 Pretreatment standards for existing sources (PSNS).

**Subpart G—Sulfate Turpentine Subcategory**

- 454.70 Applicability; description of the sulfate turpentine subcategory.
- 454.72 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).
- 454.73 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).
- 454.74 Effluent limitations representing the degree of effluent reduction attainable by the application of best conventional pollutant control technology (BCT).
- 454.75 New source performance standards (NSPS).
- 454.76 Pretreatment standards for new sources (PSNS).
- 454.77 Pretreatment standards for existing sources (PSES).

Authority: Sections 301, 304(b), (c), (e), and (g), 306 (b) and (c), 307 (b) and (c), and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, as amended by the Clean Water Act of 1977) (the "Act"); 33 U.S.C. 1311, 1314 (b), (c), (e), and (g), 1316 (b) and (c), 1317 (b) and (c), and 1361; 86 Stat. 816, Pub. L. 92-500; 91 Stat. 1567, Pub. L. 95-217.

**General Provisions****454.01 Applicability**

This part applies to char and charcoal briquet producers; gum rosin and turpentine producers; wood rosin, turpentine, and pine oil producers; tall oil rosin, pitch, and fatty acids producers; essential oils producers; rosin-based derivatives producers associated with other gum and wood chemicals subcategories; and sulfate turpentine producers which discharge or may discharge pollutants to waters of the United States or which introduce or may introduce pollutants into a publicly-owned treatment works.

**454.02 General definitions.**

In addition to the definitions set forth in 40 CFR Part 401, the following definitions apply to this part:

(a) Char and charcoal briquet production means the destructive distillation of softwood and hardwood to produce char which may be further processed into charcoal.

(b) Gum rosin and turpentine production means the distillation of the sap of live pines to separate turpentine and gum rosin. Production shall be the sum of the final products.

(c) Wood rosin, turpentine, and pine oil production means extraction from wood chips of rosin, turpentine, and pine oil and separation of the components by distillation. Production shall be the sum of the final products plus intermediates.

(d) Tall oil rosin, pitch, and fatty acids production means fractionation of crude tall oil to its constituent components. Production shall be the sum of the final products plus intermediates.

(e) Essential oils production means the steaming of oil containing raw material under pressure to produce a finished oil product. Production shall be the sum of the final product.

(f) Rosin-based derivatives production means chemical modification of the rosins. Production shall be the sum of the final products.

(g) Sulfate turpentine production means the fractionation of Kraft sulfate turpentine into its constituent components and any modifications by chemical reactions. Production shall be the sum of the final products plus intermediates.

(h) At-the-source means at a reaction kettle or other designated site where intermediates are modified by use of a metallic catalyst.

**§ 454.03 Monitoring and Reporting.**  
[Reserved]

**Subpart A—Char and Charcoal Briquets Subcategory**

**§ 454.10 Applicability; description of the manufacture of char and charcoal briquets subcategory.**

This subpart applies to discharges resulting from the production of char or charcoal briquets.

**§ 454.12 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).**

Except as provided in 40 CFR 125.30-125.32, there shall be no discharge of process wastewater pollutants to waters of the United States from any existing point source subject to this subpart.

**§ 454.13 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).** [Reserved]

**§ 454.14 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).** [Reserved]

**§ 454.15 New source performance standards (NSPS).** [Reserved]

**§ 454.16 Pretreatment standards for new sources (PSNS).** [Reserved]

**§ 454.17 Pretreatment standards for existing sources (PSES).** [Reserved]

**Subpart B—Gum Rosin and Turpentine Subcategory**

**§ 454.20 Applicability; description of the manufacture of gum rosin and turpentine subcategory.**

This subpart applies to discharges resulting from the production of gum rosin or turpentine.

**§ 454.22 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).**

Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

Subpart B		
BPT effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kkg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	1.42	0.755
TSS.....	0.077	0.026
pH.....	Within the range of 6.0 to 9.0 at all times	

**§ 454.23 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).** [Reserved]

**§ 454.24 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).** [Reserved]

**§ 454.25 New source performance standards (NSPS).** [Reserved]

**§ 454.26 Pretreatment standards for new sources (PSNS).** [Reserved]

**§ 454.27 Pretreatment standards for existing sources (PSES).** [Reserved]

**Subpart C—Wood Rosin, Turpentine, and Pine Oil Subcategory**

**§ 454.30 Applicability; description of the wood rosin, turpentine, and pine oil subcategory.**

This subpart applies to discharges to waters of the United States, and introductions of pollutants into publicly-owned treatment works from any gum and wood chemicals plant which, either exclusively or in addition to other gum and wood chemicals operations, processes wood stumps or wood chips into rosin, turpentine, and pine oil products by solvent extraction and distillation.

**§ 454.32 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).**

Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

Subpart C		
BPT effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kkg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	2.08	1.10
TSS.....	1.38	0.475
pH.....	Within the range of 6.0 to 9.0 at all times	

**§ 454.33 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).** [Reserved]

**§ 454.34 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).**

Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT):

Subpart C		
BCT effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kkg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	2.08	1.10
TSS.....	1.38	0.475
pH.....	Within the range of 6.0 to 9.0 at all times	

**454.35 New source performance standards (NSPS).**

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

Subpart C		
NSPS effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kkg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	2.08	1.10
TSS.....	1.38	0.475
pH.....	Within the range of 6.0 to 9.0 at all times	

§ 454.36 Pretreatment standards for new sources (PSNS). [Reserved]

§ 454.37 Pretreatment standards for existing sources (PSES). [Reserved]

#### Subpart D—Tall Oil Rosin, Pitch, and Fatty Acids Subcategory

§ 454.40 Applicability; description of the tall oil, rosin, pitch, and fatty acids subcategory.

This subpart applies to discharges to waters of the United States, and introductions of pollutants into publicly-owned treatment works from any gum and wood chemicals plant which, either exclusively or in addition to other gum and wood chemicals operations, processes crude tall oil into rosin, pitch, and fatty acids by fractionation.

§ 454.42 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30-32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

##### Subpart D

###### BPT effluent limitations

Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	0.995	0.529
TSS.....	0.705	0.243
pH.....	Within the range of 6.0 to 9.0 at all times.	

§ 454.43 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT). [Reserved]

§ 454.44 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).

Except as provided in 40 CFR 125.30-32, any existing point source subject to

this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT):

##### Subpart D

###### BCT effluent limitations

Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	0.995	0.529
TSS.....	0.705	0.243
pH.....	Within the range of 6.0 to 9.0 at all times.	

§ 454.45 New source performance standards (NSPS).

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

##### Subpart D

###### NSPS effluent limitations

Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	0.995	0.529
TSS.....	0.705	0.243
pH.....	Within the range of 6.0 to 9.0 at all times.	

§ 454.46 Pretreatment standards for new sources (PSNS). [Reserved]

§ 454.47 Pretreatment standards for existing sources (PSES). [Reserved]

#### Subpart E—Essential Oils Subcategory

§ 454.50 Applicability; description of the essential oils subcategory.

This subpart applies to discharges resulting from the manufacture of essential oils.

§ 454.52 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30-125.32, any existing point source subject

to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

##### Subpart E

###### BPT effluent limitations

Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	22.7	12.0
TSS.....	9.01	3.11
pH.....	Within the range of 6.0 to 9.0 at all times	

§ 454.53 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT). [Reserved]

§ 454.54 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT). [Reserved]

§ 454.55 New source performance standards (NSPS). [Reserved]

§ 454.56 Pretreatment standards for new sources (PSNS). [Reserved]

§ 454.57 Pretreatment standards for existing sources (PSES). [Reserved]

#### Subpart F—Rosin-Based Derivatives Subcategory

§ 454.60 Applicability; description of the rosin-based derivatives subcategory.

This subpart applies to discharges to waters of the United States, and introductions of pollutants into publicly-owned treatment works from any gum and wood chemicals plant which, in addition to other gum and wood chemicals operations, chemically modifies rosins.

§ 454.62 Effluent limitations representing the degree of effluent limitations reduction attainable by the application of the best practicable control technology currently available (BPT).

Except as provided in 40 CFR 125.30-125.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

## Subpart F

BPT Effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	1.41	0.748
TSS.....	0.045	0.015
pH.....	Within the range of 6.0 to 9.0 at all times	

**§ 454.63 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).**

Except as provided in 40 CFR 125.30-.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

## Subpart F

BAT effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
milligrams per liter (mg/l)		
Zinc <sup>1</sup> .....	4.2	1.8

<sup>1</sup> At the source.

**§ 454.64 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).**

Except as provided in 40 CFR 125.30-.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT):

## Subpart F

BCT effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
Kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	1.41	0.748
TSS.....	0.045	0.015
pH.....	Within the range of 6.0 to 9.0 at all times	

**§ 454.65 New source performance standards (NSPS).**

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

## Subpart F

NSPS effluent limitation		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	1.41	0.748
TSS.....	0.045	0.015
milligrams per liter (mg/l)		
Zinc <sup>1</sup> .....	4.2	1.8
pH.....	Within the range of 6.0 to 9.0 at all times	

<sup>1</sup> At the source.

**§ 454.66 Pretreatment standards for new sources (PSNS).**

Any new source subject to this subpart which introduces pollutants into a publicly-owned treatment works must comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources (PSNS):

## Subpart F

PSNS effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
milligrams per liter (mg/l)		
Zinc <sup>1</sup> .....	4.2	1.8

<sup>1</sup> At the source.

**§ 454.67 Pretreatment standards for existing sources (PSES).**

Except as provided in 40 CFR 403.13, any existing source subject to this subpart which introduces pollutants into a publicly-owned treatment works must comply with 40 CFR Part 403 and achieve the following pretreatment standards for existing sources (PSES):

## Subpart F

PSES effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
milligrams per liter (mg/l)		
Zinc <sup>1</sup> .....	4.2	1.8

<sup>1</sup> At the source.

**Subpart G—Sulfate Turpentine Subcategory**

**§ 454.70 Applicability: description of the sulfate turpentine subcategory.**

This subpart applies to discharges to waters of the United States, and introductions of pollutants into publicly-owned treatment works from any sulfate

turpentine plant which, either exclusively or in addition to other gum and wood chemicals operations, processes sulfate turpentine into pinenes, dipentene, and sulfate turpentine.

**§ 454.72 Effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT).**

Except as provided in 40 CFR 125.30-.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available (BPT):

## Subpart G

BPT effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	5.504	2.924
TSS.....	0.686	0.236
pH.....	Within the range of 6.0 to 9.0 at all times	

**§ 454.73 Effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).**

Except as provided in 40 CFR 125.30-.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT):

## Subpart G

BAT effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
milligrams per liter (mg/l)		
Copper <sup>1</sup> .....	4.5	1.8
Nickel <sup>1</sup> .....	4.1	1.8

<sup>1</sup> At the source.

**§ 454.74 Effluent limitations representing the degree of effluent reduction attainable by the application of the best conventional pollutant control technology (BCT).**

Except as provided in 40 CFR 125.30-.32, any existing point source subject to this subpart must achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best

conventional pollutant control technology (BCT):

**Subpart G**

BCT effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	5.504	2.924
TSS.....	0.686	0.236
PH.....	Within the range of 6.0 to 9.0 at all times	

achieve the following pretreatment standards for existing sources (PSES):

**Subpart G**

PSMS effluent limitations		
Pollutant or Pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
Milligrams per liter (mg/l)		
Copper <sup>1</sup> .....	4.5	1.8
Nickel <sup>1</sup> .....	4.1	1.8

<sup>1</sup>At the source.

[FR Doc. 79-46443 Filed 11-28-79; 8:45 am]

BILLING CODE 6560-01-M

**§ 454.75 New source performance standards (NSPS).**

Any new source subject to this subpart must achieve the following new source performance standards (NSPS):

**Subpart G**

NSPS effluent limitations		
Pollutant or pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
kg/kg (or lb/1,000 lb) of product		
BOD <sub>5</sub> .....	5.504	2.924
TSS.....	0.686	0.236
milligrams per liter (mg/l)		
Cooper <sup>1</sup> .....	4.5	1.8
Nickel <sup>1</sup> .....	4.1	1.8
pH.....	Within the range of 6.0 to 9.0 at all times	

<sup>1</sup>At the source.

**§ 454.76 Pretreatment standards for new sources (PSNS).**

Any new source subject to this subpart which introduces pollutants into a publicly-owned treatment works must comply with 40 CFR Part 403 and achieve the following pretreatment standards for new sources (PSNS):

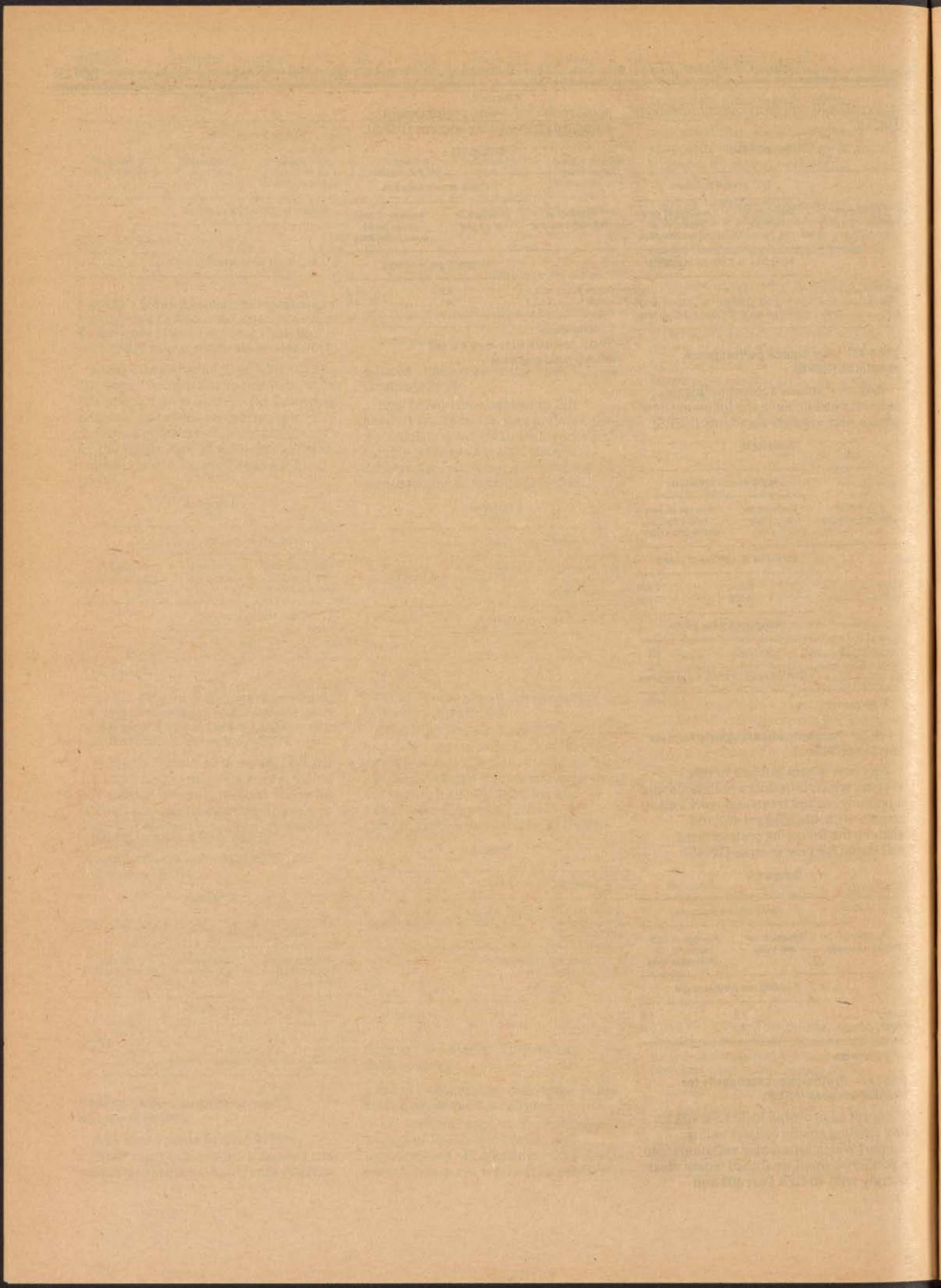
**Subpart G**

PSMS effluent limitations		
Pollutant or Pollutant property	Maximum for any 1 day	Average of daily values for 30 consecutive days
Milligrams per liter (mg/l)		
Copper <sup>1</sup> .....	4.5	1.8
Nickel <sup>1</sup> .....	4.1	1.8

<sup>1</sup>At the source.

**§ 454.77 Pretreatment standards for existing sources (PSES).**

Except as provided in 40 CFR 403.13, any existing source subject to this subpart which introduces pollutants into a publicly-owned treatment works must comply with 40 CFR Part 403 and



# **Federal Register**

---

Thursday  
November 29, 1979

---

## **Part V**

### **Department of Housing and Urban Development**

---

Office of the Assistant Secretary for  
Neighborhoods, Voluntary Associations  
and Consumer Protection

---

Mobile Home Procedural and  
Enforcement Regulations; Modular Homes  
Exemption

**DEPARTMENT OF HOUSING AND  
URBAN DEVELOPMENT**

**Office of Assistant Secretary for  
Neighborhoods, Voluntary  
Associations and Consumer  
Protection**

**24 CFR Part 3282**

[Docket No. R-79-553]

**Mobile Home Procedural and  
Enforcement Regulations; Modular  
Homes Exemption**

**AGENCY:** Office of Assistant Secretary  
for Neighborhoods, Voluntary  
Associations and Consumer Protection,  
HUD.

**ACTION:** Final rule.

**SUMMARY:** This rule amends the Mobile Home Procedural and Enforcement Regulations to set forth the certification required to be made by manufacturers of modular homes included within the definition of mobile home in order to exempt these structures from coverage under the National Mobile Home Construction and Safety Standards Act of 1974 (the "Act"). This action is taken because the Act as amended by the Housing and Community Development Act of 1977 requires the Secretary to exclude from coverage of the Act any structure with respect to which manufacturers make the certifications as set forth in this part.

**EFFECTIVE DATE:** December 31, 1979.

**FOR FURTHER INFORMATION CONTACT:**  
Jesse McElroy, Director, Office of  
Mobile Home Standards, Room 4224,  
Department of Housing and Urban  
Development, 451 Seventh Street, SW.,  
Washington, D.C. 20410, phone 202-755-  
5595 (this is not a toll free number).

**SUPPLEMENTARY INFORMATION:**

On June 23, 1978, at 43 FR 27494, the Department of Housing and Urban Development published a proposed regulation by which manufacturers may make the certifications required by section 902 of the Housing and Community Development Act of 1977 which amends section 604 of the National Mobile Home Construction and Safety Standards Act of 1974 (Title VI). Interested persons were given until August 7, 1978, to comment and 15 responses were filed. All comments were carefully analyzed and in many instances changes have been made based on the comments received.

This Preamble summarizes the significant changes made to each section of the proposed rule and comments upon the substantive suggestions received.

**Excluded Structures—Modular Homes,  
Application of Rule (3282.12(a))**

A new paragraph has been added which clarifies that a manufacturer may construct a structure that is both a mobile home and a modular home. In such case, if the Federal mobile home requirements are met, the manufacturer need not make the certification set forth in this regulation. Further, certain comments expressed a need for clarification as to whether this rule applied to modular homes that do not meet the definition of mobile home in the Act. This certification for exclusion of modulars from the Act only applies to those modulars which meet the definition of mobile home at section 603(6) of the Act.

**Definition of Site-built Permanent  
Foundation (3282.12(b)(1))**

Several comments were received concerning the use of the term site-built permanent foundation and the criteria set forth for making the certification at § 3282.12(b)(1). The term site-built permanent foundation is the term used in section 902 amending the Act. As a result of comments received, § 3282.12(b)(1)(i) has been changed by deleting the reference to a temporary foundation or supports since these terms are not defined and the Department believes that the definition for "site-built permanent foundation" at § 3282.12(b)(1)(ii) is adequate without the use of these terms.

Based on certain comments, changes were made to further clarify the definition of site-built permanent foundation by inserting the term "design" to describe the loads which are referred to in Part (A). In part (C), pertaining to materials used in construction of the foundation, "steel" was changed to the broader term "metal", which encompasses aluminum, and the term "wood" was added. The comment that proposed an addition of water resistivity and water proofing requirements to the definition was rejected since the Department believes that for the purpose of exemption, this definition is adequate.

**Definition of Not Designed to be Moved  
(3282.12(b)(2))**

Based on the only comment received on this section, the Department has inserted the word "only" between the words "operate" and "during" to indicate that those parts which must be removable are those which operate only during transportation. These parts do not include the frame itself.

**Compliance with Codes (3282.12(b)(3))**

Primarily, as a result of several comments received on § 3282.12(b)(3) pertaining to the certification to certain codes, changes have been made, particularly in subparagraph (ii).

The BOCA Basic Mechanical Code and the National Standard Plumbing Code have been included in the list of nationally recognized codes which may be used with nationally recognized building codes.

Significant changes have been made in § 3282.12(b)(3)(ii) regarding certification to a local code or to a state or local modular building code recognized as generally equivalent to a nationally recognized model building code. The Department has determined that the manufacturer need not use two separate forms of certification but that the certification label described under § 3282.12(c) of this rule will serve all the certification purposes required by the Act. Therefore, this subpart was changed to inform the manufacturer that if he certifies to a local code or state or local modular building code on the certification label described by paragraph (c), this constitutes a certification that the code is generally equivalent to the codes included under subparagraph (a)(3)(i).

However, as one comment indicates, if a person questions this certification as to equivalency he can notify the Department which can then investigate this complaint. Further, the Department will monitor certifications as it deems necessary as set forth in paragraph (f). Based on a comment received, the sentence has been deleted which stated that the Secretary may revoke acceptance of a state or local code if subsequent revisions to the equivalent nationally recognized building codes are not reflected in its revisions. The Department agrees with the comment which stated that if the Secretary has information that a substantial change in the nationally recognized code has not been reflected in the state or local code to which the manufacturer has certified the structure, the Secretary may then determine that this code is no longer equivalent and may take action as indicated in paragraph (f) of this rule.

As a result of comments received, the Department has eliminated the requirement that states or localities sign certifications as to equivalency and the requirement that copies of the codes to which the certification relates be sent to the Department.

**Manufacturers' Certification (3282.12(c))**

Some comments were received which stated their agreement with this written

certification requirement providing for the exemption of the structures covered by this rule. The Department has modified the language of this written certification based on some of the suggestions received. To alleviate the concerns as expressed in some of the comments, regarding the negative implication of the language "is not a mobile home," the Department has added qualifying language to show this structure's exemption from the Act. This language also serves the purpose of informing the consumer in simple language that this home has not been built subject to the Act's provisions.

It was also suggested that the qualifying language "to the best of the manufacturer's knowledge and belief" should be inserted before the certification of compliance with the particular cited code. The comments expressed a concern that the certification without the qualifying language is misleading since a manufacturer cannot know with certainty that every home meets the cited code in every respect. Since the Department is relying upon this certification for exclusion of the structure from the requirements of the Act and regulations, the Department does not believe that the addition of the recommended qualifying language is appropriate and has decided to retain the language used in the amendment to the Act.

#### Identification by Serial Numbers Distinguishable From Mobile Home Serial Numbers (3282.12(e))

Several comments were received criticizing the requirements of a separate set of serial numbers for these exempted structures and separate records. These comments state that these requirements place an unreasonable burden on the manufacturer. The Department, in response to these comments, has deleted its requirement that the manufacturer keep a separate record of the serial numbers of the certified structures. However, the Department has determined that the requirement of identifying the exempted structure with a serial number of a series distinguishable from the series used for mobile homes manufactured in the same plant is necessary and not unduly burdensome. The Secretary, by the Act, has the authority to prescribe the form of certification to be used so that the structure can be excluded from the Act's coverage. To maintain an effective inspection system, the Department believes that it is necessary for the plant inspectors to be able to easily identify the structures which the manufacturer is

certifying under this section. Further, it is necessary for these structures to be so identified at the first stage of production. This is consistent with the fact that serial numbers must be placed on mobile home units at the first stage of production.

#### Change in Certification (3282.12(e) (1), (2))

One comment requested an expansion of the provision in this section allowing the change in certification from a modular home to a mobile home during the construction process to also allow a change from a mobile home to an exempted modular home. After careful consideration of this suggestion, the Department has rejected it and added a provision clearly stating that such a change-over may not occur. This position is consistent with one lengthy comment which expressed a strong concern that this provision for exemption can create a large loophole which will curtail the construction and safety goals of the Act. In order to obtain the exclusion under this section, the manufacturer must make this determination at the beginning of the construction process. This rule does allow a change from a modular to a mobile home through inspection by the primary inspection agency which would have the capability to inspect this home to assure full compliance with the Federal standards. This does not prevent the manufacturer from also certifying the mobile home to a modular building code as indicated in § 3282.12(a).

#### False Certifications (3282.12(f))

The Department has added a procedure to be followed when it obtains information that a certification may be false or inaccurate. The manufacturer will first be given an opportunity to respond to the validity of this information before the Secretary determines the validity of the manufacturer's certification.

The Department has also added a subparagraph to this section in accordance with Section 610(a)(6) of the Act, 42 U.S.C. section 5409, as amended, which prohibits the issuance of false or misleading certifications pursuant to this exclusion. Thus, any person who violates this provision of Section 610 of the Act is subject to civil and criminal penalties under Section 611 of the Act.

Finally, comments were received that stressed the need for the Department to construe the exemption narrowly and to carefully monitor this exemption process. These comments emphasized the need for procedures to prevent the creation of a "loophole" in the mobile

home program which could lead to its demise. In response to these comments emphasizing the need for active monitoring of this exemption process, the Department believes that indeed it is its responsibility to insure that the self-certifications by modular manufacturers are accurate and to prevent the sale of mobile homes as modulares. To carry out this responsibility, the Department will monitor the certification process as it deems necessary to prevent the creation of a "loophole" in the mobile home program.

A Finding of Inapplicability of section 102(2)(c) of the National Environmental Policy Act of 1969 was made in accordance with the Procedures for Protection and Enhancement of Environmental Quality prior to the proposed rule, "Modular Homes—Exempt from Federal Regulation," being published at FR 27494 June 23, 1978. This finding is applicable to the final rule and is available for public inspection in the Office of the Rules Docket Clerk, Room 5218, U.S. Department of Housing and Urban Development, 451 Seventh Street SW., Washington, D.C. 20410, during normal business hours.

Accordingly, 24 CFR Part 3282 is amended as follows:

#### § 3282.8 [Amended]

1. By deleting paragraph (m) of § 3282.8.
2. By adding a new § 3282.12 as follows:

#### § 3282.12 Excluded structures—Modular homes.

(a) the purpose of this section is to provide the certification procedure authorized by section 604(h) of the National Mobile Home Construction and Safety Standards Act of 1974 under which modular homes may be excluded from coverage of the Act if the manufacturer of the structure elects to have them excluded. If a manufacturer wishes to construct a structure that is both a mobile home and a modular home, the manufacturer need not make the certification provided for by this section and may meet both the Federal mobile home requirements and any modular housing requirements. When the certification is not made, all provisions of the Federal requirements shall be met.

(b) Any structure that meets the definition of "mobile home" at 24 CFR 3282.7(u) is excluded from the coverage of the National Mobile Home Construction and Safety Standards Act of 1974, 42 U.S.C. 5401 *et seq.*, if the manufacturer certifies as prescribed in paragraph (c) of this section that:

(1) The structure is designed only for erection or installation on a site-built permanent foundation;

(i) A structure meets this criterion if all written materials and communications relating to installation of the structure, including but not limited to designs, drawings, and installation or erection instructions, indicate that the structure is to be installed on a permanent foundation.

(ii) A site-built permanent foundation is a system of supports, including piers, either partially or entirely below grade which is:

(A) Capable of transferring all design loads imposed by or upon the structure into soil or bedrock without failure,

(B) Placed at an adequate depth below grade to prevent frost damage, and

(C) Constructed of concrete, metal, treated lumber or wood, or grouted masonry; and

(2) The structure is not designed to be moved once erected or installed on a site-built permanent foundation;

(i) A structure meets this criterion if all written materials and communications relating to erection or installation of the structure, including but not limited to designs, drawings, calculations, and installation or erection instructions, indicate that the structure is not intended to be moved after it is erected or installed and if the towing hitch or running gear, which includes axles, brakes, wheels and other parts of the chassis that operate only during transportation, are removable and designed to be removed prior to erection or installation on a site-built permanent foundation; and

(3) The structure is designed and manufactured to comply with the currently effective version of one of the following:

(i) One of the following nationally recognized building codes:

(A) That published by Building Officials and Code Administrators (BOCA) and the National Fire Protection Association (NFPA) and made up of the following:

- (1) BOCA Basic Building Code,
- (2) BOCA Basic Industrialized Dwelling Code,
- (3) BOCA Basic Plumbing Code,
- (4) BOCA Basic Mechanical Code, and
- (5) National Electrical Code, or

(B) That published by the Southern Building Code Congress (SBCC) and the NFPA and made up of the following:

- (1) Standard Building Code,
- (2) Standard Gas Code,
- (3) Standard Mechanical Code,
- (4) Standard Plumbing Code, and
- (5) National Electrical Code, or

(C) That published by the International Conference of Building Officials (ICBO), the International Association of Plumbing and Mechanical Officials (IAPMO), and the NFPA and made up of the following:

- (1) Uniform Building Code,
- (2) Uniform Mechanical Code,
- (3) Uniform Plumbing Code, and
- (4) National Electrical Code or

(D) The codes included in paragraphs (b)(3)(i)(A), (B), or (C) in connection with the One- and Two-Family Dwelling Code, or

(E) Any combination of the codes included in paragraphs (b)(3)(i)(A), (B), (C), and (D), that is approved by the Secretary, including combinations using the National Standard Plumbing Code published by the National Association of Plumbing, Heating and Cooling Contractors (PHCC), or

(F) Any other building code accepted by the Secretary as a nationally recognized model building code, or

(ii) Any local code or State or local modular building code accepted as generally equivalent to the codes included under paragraph (a)(3)(i), (the Secretary will consider the manufacturer's certification under paragraph (c) of this section to constitute a certification that the code to which the structure is built is generally equivalent to the referenced codes. This certification of equivalency is subject to the provisions of paragraph (f) of this section) or

(iii) The minimum property standards adopted by the Secretary pursuant to Title II of the National Housing Act; and

(4) To the manufacturer's knowledge, the structure is not intended to be used other than on a site-built permanent foundation.

(c) When a manufacturer makes a certification provided for under paragraph (b) of this section, the certification shall state as follows:

The manufacturer of this structure, Name \_\_\_\_\_; Address \_\_\_\_\_  
(location where structure was manufactured).

Certifies that this structure (Ser. No. \_\_\_\_\_) is not a mobile home subject to the provisions of the National Mobile Home Construction and Safety Standards Act of 1974 and is—

(1) designed only for erection or installation on a site-built permanent foundation,

(2) not designed to be moved once so erected or installed,

(3) designed and manufactured to comply with \_\_\_\_\_ (Here state which code included in paragraph (b)(3) of this section has been followed), and

(4) to the manufacturer's knowledge is not intended to be used other than on a site-built permanent foundation.

(d) This certification shall be affixed in a permanent manner near the electrical panel, on the inside of a kitchen cabinet door, or in any other readily accessible and visible location.

(e) As part of this certification, the manufacturer shall identify each certified structure by a permanent serial number placed on the structure during the first stage of production. If the manufacturer also manufactures mobile homes that are certified under §§ 3282.205 and 3282.362(c), the series of serial numbers for structures certified under this section shall be distinguishable on the structures and in the manufacturer's records from the series of serial numbers for the mobile homes that are certified under §§ 3282.205 and 3282.362(c).

(1) If a manufacturer wishes to certify a structure as a mobile home under §§ 3282.205 and 3282.362(c) after having applied a serial number identifying it as exempted under this section, the manufacturer may do so only with the written consent of the Production Inspection Primary Inspection Agency (PIPIA) after thorough inspection of the structure by the PIPIA at at least one stage of production and such removal or equipment, components, or materials as the PIPIA may require to perform inspections to assure that the structure conforms to the Federal mobile home standards. The manufacturer shall remove the original serial number and add the serial number required by § 3280.6.

(2) A manufacturer may not certify a structure under this section after having applied the mobile home serial number under § 3280.6.

(f) All certifications made under this section are subject to investigation by the Secretary to determine their accuracy. If a certification is false or inaccurate, the certification for purposes of this section is invalid and the structures that have been or may be the subject of the certification are not excluded from the coverage of the Act, the Federal Mobile Home Construction and Safety Standards, or these Regulations.

(1) If the Secretary has information that a certification may be false or inaccurate, the manufacturer will be given written notice of the nature of this information by certified mail and the procedure of this subparagraph will be followed.

(i) The manufacturer must investigate this matter and report its findings in writing as to the validity of this information to the Secretary within 15 days from the receipt of the Secretary's notice.

- (ii) If a written report is received within the time prescribed in paragraph (f)(1)(i), the Secretary will review this report before determining whether a certification is false or inaccurate. If a report is not received within 15 days from the receipt of the Secretary's notice, the Secretary will make the determination on the basis of the information presented.
- (iii) If the Secretary determines that a certification is false or inaccurate, the manufacturer will be given written notice and the reasons for this determination by certified mail.

(2) The Secretary may seek civil and criminal penalties provided for in section 611 of the Act, 42 U.S.C. 5410, if the party in question in the exercise of due care has reason to know that such certification is false or misleading as to any material fact.

(Sections 604(h) and 625 of the National Mobile Home Construction and Safety Standards Act of 1974, 42 USC 5403 and 5424, and Section 7(d), Department of HUD Act, 42 USC 3535(d).)

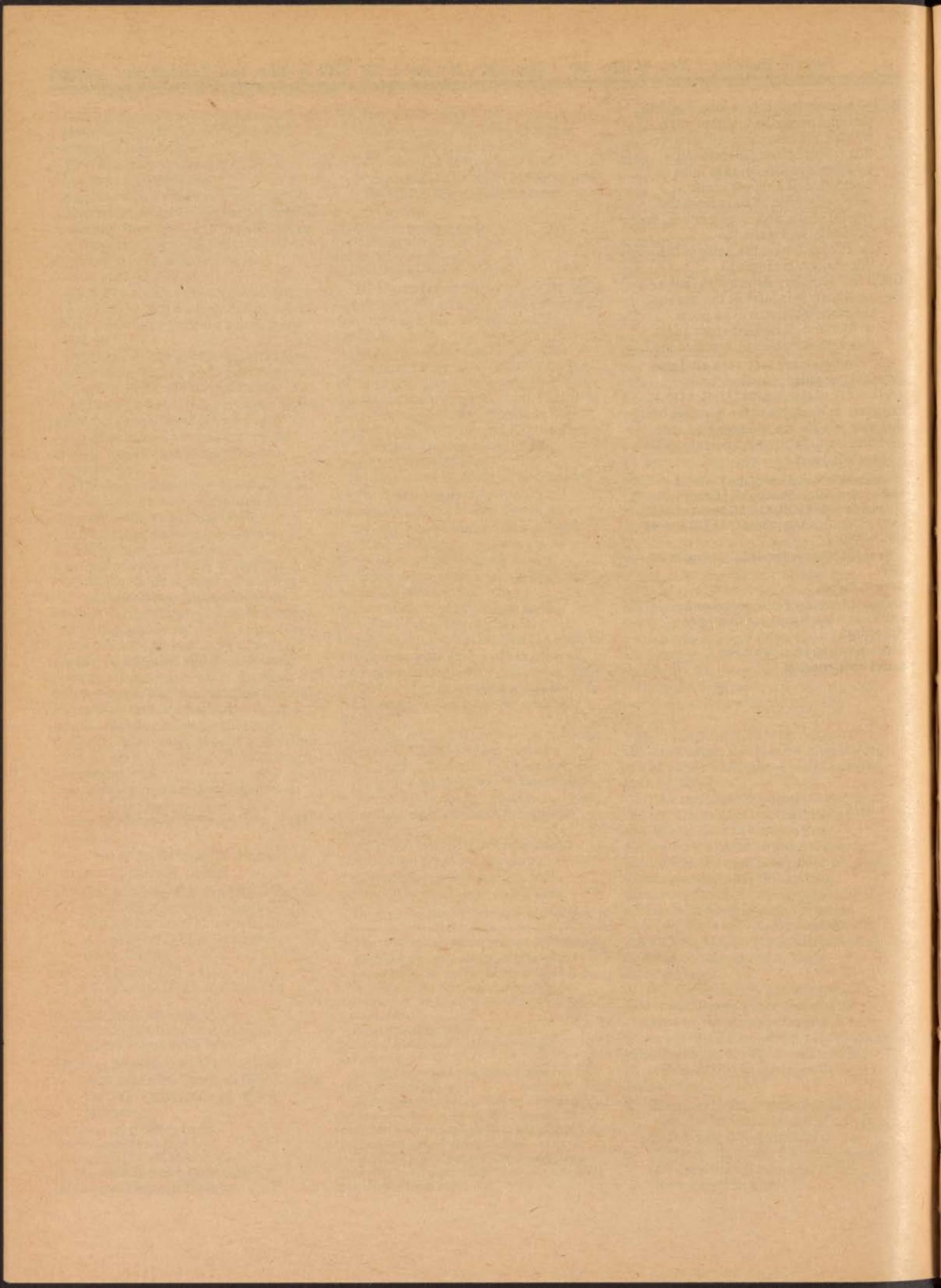
Issued at Washington, D.C., November 20, 1979.

**Geno C. Baroni,**

*Assistant Secretary for Neighborhoods,  
Voluntary Associations and Consumer  
Protection.*

[FR Doc. 79-36758 Filed 11-28-79; 8:45 am]

BILLING CODE 4210-01-M



**18**  
**19**  
**20**  
**21**  
**22**  
**23**  
**24**  
**25**  
**26**  
**27**  
**28**  
**29**  
**30**  
**31**  
**32**  
**33**  
**34**  
**35**  
**36**  
**37**  
**38**  
**39**  
**40**  
**41**  
**42**  
**43**  
**44**  
**45**  
**46**  
**47**  
**48**  
**49**  
**50**  
**51**  
**52**  
**53**  
**54**  
**55**  
**56**  
**57**  
**58**  
**59**  
**60**  
**61**  
**62**  
**63**  
**64**  
**65**  
**66**  
**67**  
**68**  
**69**  
**70**  
**71**  
**72**  
**73**  
**74**  
**75**  
**76**  
**77**  
**78**  
**79**  
**80**  
**81**  
**82**  
**83**  
**84**  
**85**  
**86**  
**87**  
**88**  
**89**  
**90**  
**91**  
**92**  
**93**  
**94**  
**95**  
**96**  
**97**  
**98**  
**99**  
**100**

---

Thursday  
November 29, 1979

---

**Part VI**

**Department of  
Transportation**

---

**Federal Aviation Administration**

---

**Aircraft Wheels, Wheel-Brake Assemblies  
and Tires; Revision of Standards and  
Requirements**

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Parts 23, 25 and 37

[Docket No. 18564; Amendment Nos. 23-24; 25-48; and 37-45]

## Aircraft Wheels and Wheel-Brake Assemblies; Airworthiness and Performance Standards

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The purpose of this amendment is to revise the Technical Standard Order (TSO) for aircraft wheels and wheel-brake assemblies and related type certification requirements for airplane brakes. As revised, the standards will incorporate updated and improved minimum performance standards for the design and construction of aircraft wheels and brakes.

**EFFECTIVE DATE:** December 31, 1979.

**FOR FURTHER INFORMATION CONTACT:** Mr. Raymond E. Ramakis, Regulatory Projects Branch, AVS-24, Safety Regulations Staff, Associate Administrator for Aviation Standards, Federal Aviation Administration, 800 Independence Avenue, S.W., Washington, D.C. 20591; telephone (202) 755-8716.

**SUPPLEMENTARY INFORMATION:****Background**

This amendment concerning aircraft wheels and wheel-brake assemblies is being issued concurrently with the amendment which updates the minimum performance standards applicable to aircraft tires. The preamble to the tires amendment (published also in this issue of the *Federal Register*) explains the background which has led to the need for revised standards for tires and for wheels and wheel-brake assemblies and their interrelation.

The accidents and incidents affecting large commercial jet airplanes involving landing gear have resulted in part from failures of tires and of wheels and brakes. With respect to wheels and wheel-brake assemblies, failure due to fatigue is one of the more common and serious types of failures experienced with aircraft wheels. To improve the overall strength of wheels and to reduce their susceptibility to fatigue, the standards for wheels are being revised. These amendments will require more severe testing of wheels and wheel-brake assemblies to substantiate the

load ratings of wheels and the kinetic energy capacity rating of brakes.

These amendments are based on a Notice of Proposed Rule Making, Notice No. 78-16, published in the *Federal Register* on December 7, 1978 (43 FR 57261). That notice invited comments by all interested persons. All persons have been afforded an opportunity to participate in the making of these amendments and due consideration has been given to all matter presented.

Significant comments received in response to Notice 78-16 are discussed below. A number of substantive, editorial, and clarifying changes have been made to the proposed rules based on relevant comments received and on further review within the FAA. Except for minor editorial and clarifying changes and those discussed below, these amendments and the reasons for their adoption are the same as those contained in Notice 78-16.

This amendment implements the President's directive (Executive Order 12044) that regulations be as simple as possible and not impose unnecessary burdens on the economy or on the regulated public. The amendment also promotes the public interest by increasing safety and the efficiency of aircraft through use of improved wheels and wheel-brake assemblies.

**Discussion of General Comments**

Fifteen commenters, including seven non-U.S. organizations, responded to Notice 78-16 with 64 comments. The majority of the comments presented the views of manufacturers and air carriers. In general, the commenters concerned themselves with those areas of the proposal they believe could be improved and raised no objection to the basic concept of the proposal. There were several favorable comments received in support of the proposal and one commenter stated that the proposed revision of the TSO is a significant improvement over the existing TSO.

Two commenters recommended that it should be demonstrated by test that the wheel flanges be able to withstand concentrated loads and not come apart under the condition of deflated or missing tires. There should be a specific test requirement which assures that a wheel will maintain its integrity with the loss of a mated tire. A new paragraph 4.1(c)(3) is added for this purpose.

**Discussion of Specific Comments****§ 23.735 Brakes**

A commenter suggested the numerical constant in the formula for calculating kinetic energy would be more accurate if written as 0.0443 in place of 0.0442 in

§ 23.735(a)(2) of the Federal Aviation Regulations (FAR). This change is adopted.

**§ 25.735 Brakes**

As pointed out by three commenters, § 25.75, which prescribes landing requirements for reciprocating engine powered transport category airplanes, was deleted by a recent amendment and should no longer be referred to in the rule. The reference to § 25.75 is replaced by a reference to § 25.125 which prescribes the landing requirements for all transport category airplanes.

Two commenters suggested that the numerical constant in the formula for calculating the kinetic energy requirements for each main wheel brake assembly should be 0.0443. The change is incorporated.

Three commenters recommended that "N", as it is used in the formula in § 25.735(f)(2), should be further defined as "the number of wheels with brakes" to be consistent with the TSO. The comment is valid. However, the word "main" must be a part of the definition because § 25.735(f) applies to the brakes on main wheels only. This aspect applies equally to the formula and definition in § 23.735(a)(2). The definitions of "N" in §§ 23.735(a)(2) and 25.735(f)(2) are amended accordingly.

Three commenters recommended that a reference to the accelerate-stop case should be made in § 25.735(f)(2). However, the requirements in that paragraph are for kinetic energy absorption requirements for brake assemblies in normal operations. The provisions for the accelerate-stop distance determination are set forth in §§ 25.105 and 25.109 which concern other performance requirements involved in emergency situations and which are not appropriate for § 25.735(f)(2).

Two commenters suggested that the words "wheel-brake assembly" as they appear in § 25.735 (f) and (g) should be changed to "wheel tire and brake assembly." However, tire requirements are covered in § 25.733 and experience has not indicated a need for the recommended change.

**§ 37.172 Aircraft Wheels and Wheel-Brake Assemblies—TSO-C26C****§ 37.172(b) Marking**

A commenter suggested that the date of manufacture should always be shown on the wheel and brake assemblies. However, no reason was given. The requirement is to mark the serial number or date of manufacture or both. The marking requirements are the minimums necessary for identification of the article

by the FAA. If the manufacturer elects to mark the article with the serial number alone, the FAA may obtain the date of manufacture from factory production records when needed. Therefore, it is not necessary that the date of manufacture be shown in all cases in order to adequately identify a wheel or wheel brake assembly.

One commenter recommended that tire change counters be included on the wheel and some external marking be placed on the wheel rim to indicate the position of drive keys to facilitate alignment with rotors on the brake heat sink. While tire change counters and alignment markings may be useful to maintenance personnel, they do not represent a safety consideration and should not be imposed as wheel and brake requirements. The customer may contract with the manufacturer to have these items marked on the wheel if desired.

#### § 37.172(c) Data Requirements

A commenter recommended that "stop distance" and "average deceleration" be added as required data and also be added in paragraph 4.2(a)(2) of the TSO where the average deceleration would be defined as equalling the square of the brakes-on velocity ( $V_{br}$ ) divided by twice the stop distance ( $s$ ). As an alternative to adding the stop distance, it was recommended that the stop distance be equal to or less than the square of the brakes-on velocity divided by twice the average deceleration. The TSO establishes the minimum performance required of wheel and brakes. The manufacturer has the option of exceeding the requirements if it wishes. An aircraft or brake manufacturer may use the method recommended but should not be required to do so.

#### § 37.172(d) Previously Approved Equipment

A commenter recommended a change in the rules to allow a manufacturer to complete its contractual obligations under the TSO requirements in effect at the time of the contract or a 2-year extension beyond the effective date of the new TSO. The problem is the long lead time required to design, build, and test certain types of equipment during which time the TSO may be changed. While this is not unique to wheels and brakes, in some cases a wheel/brake assembly, not yet approved, may be required to meet additional safety provisions contained under the new TSO. However, the rule does not negate any approvals given under the earlier TSO nor does it prohibit production of items under earlier approvals.

This commenter also contended that the new wheel and brake standards will result in increased costs to manufacturers, particularly for transport category airplanes. While some additional costs may be incurred initially because of the extra testing involved, the added safety resulting from fewer wheel failures and less damage to operating aircraft caused by wheel and brake failures will more than outweigh such costs.

#### Standard for Wheels and Wheel-Brake Assemblies

##### Paragraph 2(a)(1) Lubricant Retainers

A commenter suggested that the design criteria in the paragraph may be good for wheels but not necessarily applicable for the brake chassis. It contended that if grease retaining is used in the brake chassis, inadequate lubrication results, giving rise to excessive wear and bearing defects. However, there is no service history problem related to lubricant retainers on brake chassis and the commenter offered no supporting data for the suggestion. The paragraph is adopted as proposed.

##### Paragraph 2(a)(3) Adjustment

A commenter recommended that a requirement be added to specify that all brake units be fitted with pressure plate pull-off devices to ensure minimum running clearance when brakes are in the off position. It was asserted that the requirement would assist in reducing heat build-up during taxiing. The commenter did not justify the need for such a requirement. A brake designer is not prohibited from incorporating pressure plate pull-off devices if they are desired. However, no purpose would be served in listing the various brake design features such as pressure plate pull-off devices that may be desirable from an operations or maintenance viewpoint but are not necessary for safety.

##### Paragraph 2(a)(5) Explosion Prevention

A commenter suggested that more attention should be given to establishing the correct siting, number, and size of fuses. The commenter also cautioned that provision of too many fuses will increase the risk of running with under-inflated tires. However, the commenter did not recommend any changes or allege that the standard is inadequate. There is no service history to indicate problems with fuse plug selection. The current rule is adequate and is being continued in the new standard.

Paragraph 2.(a)(5) is adopted without change.

##### Paragraph 2.(b) Construction

A commenter stated that wheel failures are usually associated with fatigue or tire failure. The commenter noted that protection against fatigue failure is not adequately reflected in the standard and suggested that fatigue resistance enhancement measures (such as shot peening, cold rolling, etc.) could be required in fatigue critical areas. As suggested, there should be a specific requirement to improve the fatigue resistance of the wheel and a new section 2.(b)(11) is added for this purpose.

A commenter suggested that heavy emphasis should be placed on standardization with respect to the hub and bead seat areas, and the need for protection of aluminum alloy parts. The commenter asserted that in-service corrosion is a frequent cause of rim failures. Although possible cost benefits to manufacturers and operators may result from standardization of wheel and brake designs, such an option is open without the rules requiring it. Moreover, standardization imposed by the rules could inhibit new designs. With respect to the comments regarding the hub and bead seat areas and protection of aluminum alloy parts, requirements for these areas are adequately covered in paragraphs 2.(b)(1) and 2.(b)(8). No change is made to the proposal based on these comments.

##### Paragraph 2.(b)(6) Bolts and Studs

A commenter stated that during removal of wheel tie bolts, it has been common experience to find there is insufficient clearance between the socket and wheel surface using standard sockets. Further, if tools are worn, it is necessary to use an inserted protective surface to prevent wheel or brake damage. These comments relate to individual design considerations which may in some cases require special tools. They do not provide a basis for changing the standard.

##### Paragraph 2.(b)(7) Steel Parts

A commenter recommended that paragraph 2.(b)(7) include words limiting the use of cadmium plating on parts operating at temperatures above the melting point of cadmium. The comment has merit. Although cadmium and zinc plating have been satisfactory in protecting wheel and brake components against corrosion in the past, the TSO should not limit corrosion protection methods to cadmium and zinc plating. There may be other equivalent or better protection methods, including methods

better able to withstand temperature environments. Paragraph 2.(b)(7) is revised to allow other corrosion protection means.

#### *Paragraph 2.(b)(9) Magnesium Parts*

A commenter suggested that the use of magnesium alloy parts be avoided in transport category aircraft wheel and wheel-brake assemblies. In the standard, the use of magnesium is optional. The designer may select another material depending on the intended use of the wheel and brake units. If magnesium alloy is used, then it must be given corrosion protection as specified.

#### *Paragraph 2.(b)(10) Bearing and Braking Surfaces*

A commenter pointed out that paragraph 2.(b)(10) in TSO-C26b was not included in the proposal. The commenter asserted that although finish is not typically applied to assemblies, it is still appropriate to require protection of bearing and braking surfaces if a finish is to be applied. Clearly there is a need for the requirement. The paragraph was inadvertently omitted during the development of the proposal. Paragraph 2.(b)(10) is incorporated in the adopted rule.

#### *Paragraph 3.(a)(2) Rating*

A commenter suggested adding the word "radial" to "maximum limit load" in paragraph 3.(a)(2) to further qualify the meaning of the term. However, the word "radial" refers to direction and would be inappropriate for inclusion under this paragraph since the maximum limit load covers more than just radial loads. Paragraph 3.(a)(2) is adopted as proposed.

#### *Paragraph 4.1 Wheel Tests*

A commenter recommended the test inflation pressure be increased up to a factor of 3.5 in place of the factor of 2 to avoid bottoming the tire while under the ultimate test load in paragraphs 4.1(a)(3) and 4.1(b)(3). The commenter contended that aircraft tires are operationally subject to test overpressures of 4 and 4.5 times their rated inflation pressure. The purpose of the ultimate load test is to load the wheel in a manner which is indicative of in-service conditions. Increasing the tire inflation pressure would provide an incorrect distribution of load on the wheel. Under the proposal, when tire bottoming occurs due to the application of ultimate test loads, provision is made for use of a loading block which fits between the rim flanges and simulates the load transfer of the tire. This test arrangement is satisfactory for determining yield and

ultimate strengths of the wheel. No change is made based on this comment.

Another commenter objected to allowing the tire pressure to be increased up to 2 times the rated inflation pressure to avoid tire bottoming during the ultimate load tests in paragraph 4.1(a)(3) and 4.1(b)(3). It was claimed that the test pressure allowed eliminates the only test condition that tests wheel flanges under concentrated loads. The commenter asserted that concentrated loads on the wheel flanges may occur when the wheel is rolling while the tire is deflated or missing. Finally, the commenter suggested that if the proposed test pressure is allowed, a separate test should be devised that demonstrates wheel flange strength. As previously discussed under General Comments there is sufficient justification to require a demonstration of flange strength based upon a missing tire, and a separate test is added under paragraph 4.1(c)(3). No other changes to paragraph 4.1 (a)(3) or (b)(3) are necessary.

A commenter contended that recent experience indicates there is a need for wheel tests with the brake unit installed. It was suggested that such tests be conducted under the test loads specified in proposed paragraph 4.1. In addition, the commenter recommended the tests include checks for adequate clearances between the wheel drive keys and brake rotor assembly while under test loading conditions. The commenter did not identify the experience and FAA records do not indicate any such problems in connection with past approvals of wheel and brake assemblies. Paragraph 4.1(a) is adopted without change.

A commenter suggested that the ultimate test in paragraph 4.1(b)(3) be done with side loads applied in the most critical direction. However, such detailed specification is unnecessary since the direction, including inboard and outboard side directions, and magnitude of the test loads are established in accordance with the FAR sections referenced in the standard.

A commenter pointed out that the use of the loading block specified in paragraph 4.1(b)(3) is incompatible with the statement in paragraph 4.1(b)(1). For clarification, the words "or the loading block" are added immediately after the word "tire" in the eighth sentence of paragraph 4.1(b)(1). Another commenter wanted the fit and loading position of the loading block to be more clearly defined. However, the paragraph prescribes the length of arc, the width and fit, and the load transfer characteristics of the block and therefore provides adequate information for use of the loading block.

A commenter contended that the yaw roll test of paragraph 4.1(c)(2) should be conducted with radial and side load components resulting from a 0.15g turn of the aircraft at the maximum weight and most adverse center of gravity location, as determined by the airframe manufacturer. Although the values of 0.15S and 0.15g are numerically equal, the side load component is more clearly defined as 0.15S rather than specifying a 0.15g turn condition as suggested by the commenter. Moreover, the maximum static load (S) is defined in terms of design takeoff weight and critical center of gravity as provided in § 25.731(b), which is referenced in paragraph 3.(a)(1). Another commenter understood that the intent of the proposed yaw roll test is to simulate a 0.15g turn condition and noted that the side load component is described as 0.15S in which S is a static load. The commenter did not distinguish the relationship of the terms 0.15g and 0.15S. There is no reason for wheel and brake manufacturers to have difficulty in interpreting the meaning of 0.15S since the ground loads section of Part 25 designates side loads in terms of vertical ground reactions. No change is made based on these comments.

A commenter suggested that "radial load" be changed to "vertical load" in paragraph 4.1(c). It is asserted that a vertical load would be perpendicular to the loading surface, whereas a radial load will have the same angular orientation as the wheel. However, in normal testing the orientation of the test wheel with respect to the loading surface may be such that applied loads are horizontal. In addition, the language is clear in the standard in requiring the radial load to be applied to the wheel through the axle and perpendicular to the load surface. The term "radial load", therefore, accurately expresses the intent.

A commenter suggested that it should be made clear what rotational speed of the wheel is required in the roll test. Its experience is said to indicate that a good speed is about 10 miles per hour. However, the commenter did not provide any information to show that the standards should include a specified wheel test speed. Actually, although the roll performance of the wheel is not affected by roll speed, the roll speed must be selected to accommodate the operating characteristics of the installed tire. Under the proposal, the intent is that the applicant select any speed consistent with the tire characteristics.

A commenter recommended that the wheel roll tests should include an overload test requirement. It has pointed out that in light of the 1.5 overload test

factor for tires, wheel test criteria should at least match this requirement. It was alleged that wheels can be subjected to twice their normal rated load on more than one occasion during their service life. In this connection, however, significant improvements in wheel testing are being made in this standard over the wheel tests in the previous TSO and provide the equivalent of the overload test suggested by the commenter. An overload test for wheels is therefore not needed.

A commenter pointed out that since a 7 percent safety margin was introduced for tires on transport category airplanes, it is advisable to include a 7 percent strength margin for wheels. It was suggested that one method of accomplishment would be to revise the overpressure factor from "4.0" to "4.07" in paragraph 4.1(d)(1). The comment, however, does not take into account that the overpressure factor for wheels is being increased 14 percent under paragraph 4.1(d)(1) which more than compensates for the 7 percent load margin applied to main dual wheel tires. The comment offers no justification for increasing the overpressure factor above 14 percent. This increased factor, being adopted as proposed, provides the necessary strength margin.

One commenter objected to the 4.0 overpressure factor in paragraph 4.1(d)(1), contending that the reasoning behind the increase from 3.5 to 4.0 was not understood. It was claimed that overinflation in service of this magnitude was highly unlikely and the 3.5 factor seemed acceptable. In recent years some air carriers have been operating with higher tire inflation pressures resulting in fewer tire-wheel-brake failures due to lower operating temperatures. The continued operation at higher inflation pressures requires stronger wheels to maintain their normal life expectancy. In addition, tire standards now include a higher overpressure factor (4.0) requirement for all types of tires. Thus, a compatible overpressure test for wheels is needed to establish a level of safety consistent with that of tires. No change is made based on this comment.

Two commenters supported the proposed 4.0 overpressure factor. One stated that the overpressure factor 4.0 should improve the strength of wheels. The other suggested that under conditions of high heat transfer, it should be demonstrated that the wheel is able to dissipate its pressure down to a residual level which will not cause bursting if wheel strength is impeded. However, such a requirement would inhibit design. The wheel and brake

designer must account for critically high temperatures and pressures that may occur by installing adequate temperature and pressure-sensitive relief devices.

Two commenters objected to the 5 percent maximum pressure drop from rated inflation pressure in a 24-hour period in the diffusion test requirement of paragraph 4.1(d)(2). They suggested the 5 percent be lowered and one recommended specifically that it be revised to 3 percent. The other supported the need for an overall leakage factor no greater than 5 percent and noted correctly that since the tire alone is allowed 5 percent, the leakage factor for the wheel would then have to be zero percent. The standard provides that the tire-wheel combination be subjected to the diffusion test for which the 5 percent pressure drop limit provides the required level of safety. The recommendation for a change to 3 percent was unsupported and the commenter provided no basis for going to a stricter limit. Therefore, no change is made based on these comments.

#### *Paragraph 4.2 Wheel-Brake Assembly Tests*

Where a wheel, as part of a wheel-brake assembly, has previously been tested at a relatively high kinetic energy level, one commenter recommended that when a different brake of lower kinetic energy is to be later used with the same wheel, only the brake should be required to be tested. The test is suggested, according to the commenter, because a given wheel model may be fitted with any brake assembly models. However, the test procedures recommended would not be in accord with § 25.735(f) and proposed paragraph 4.2 which require wheel and brake units to be tested as assemblies. Under the commenter's proposal, the functional compatibility of the wheel and brake would be unknown since they would not have been tested as a unit. Therefore, no change is made to paragraph 4.2 based on this comment.

A commenter noted that paragraph 4.2 does not appear to require any kinetic energy margin to be built into the brake. That is correct; it is not necessary to require a specific safety margin if it can be demonstrated that the brakes are adequate for the purpose intended and can operate safely.

The commenter also noted that the proposed tests allow credit for all brakes on an aircraft when there have been cases during rejected takeoffs where one or more tires have blown thereby rendering the corresponding brakes ineffective. However, the rationale is that wheels and brakes

should not be unduly penalized by requiring over-design because tires may fail in operation. As pointed out previously, the FAA is upgrading aircraft tire standards to strengthen tires which will result in safer tire-wheel-brake combinations for the future. No change is made based on the comment.

Three commenters suggested that the word "tyre" be included in the term "wheel-brake assembly" in the proposed paragraph 4.2. It was stated that adding the word "tyre" would avoid the use of test tire which might absorb more than the correct share of kinetic energy. As suggested, the requirement should be clarified and the paragraph has been changed to specify inclusion of a suitable tire of proper fit.

These commenters also recommended that the word "torque" be deleted from the title "Dynamic torque tests" in paragraph 4.2(a). However, the word is appropriately used in the standard since the intent is to measure torque accurately.

These commenters further contended that where the energy absorbed by the tire can be satisfactorily established, an allowance for this should be made. However, this would effectively reduce the required kinetic energy ratings for wheel-brake assemblies and would be contrary to current safety needs to upgrade wheel and brake units.

These commenters also asserted that the last sentence in paragraph 4.2(a)(1)(ii) about not considering decelerating effects of certain equipment is inconsistent with § 25.125(b)(3). To the contrary, however, the language in the standard clarifies the test conditions by identifying those items whose decelerating effects are disallowed. Moreover, allowance of the proscribed deceleration effects in the qualification tests would reduce brake energy capacity ratings and would be contrary to the intent of the standard to upgrade wheel and brake standards.

Two commenters pointed out that Method II in paragraph 4.2(a)(1)(ii) is allowed only for landing and recommended that it also be allowed for the accelerate-stop case. The first sentence of paragraph 4.2(a)(1)(ii) is amended accordingly.

#### *Paragraph 4.2(a)(2) Test Requirements*

Two commenters suggested that the deceleration rates specified in Table II in paragraph 4.2(a)(2) be defined as equalling  $V^2/2S$ , where V equals brakes-on velocity and S equals the stop distance. They claimed that stop distance is the key parameter in determining acceptability of the test results and that deceleration rate based on "time" will not necessarily result in

an acceptable test. The comment is not accepted since the stop distance will vary between airplanes and can be established from the rate of deceleration as appropriate.

A commenter recommended that for the products already approved by TSO-C26b, only 100 design landing stops should be required for the brake assembly, without the wheel, for certification under TSO-C26c. However, as discussed earlier in connection with kinetic energy considerations, a wheel and brake must be tested together to assure compatibility of performance.

Four commenters recommended that the accelerate-stop test required in paragraph 4.2(a)(2) of the standard be conducted with brakes approaching the fully worn state. They maintain that the wearing elements of the brake assembly may be worn to a condition in which they are no longer capable of absorbing the maximum kinetic energy expected in service such as an accelerate-stop condition. However, in-service maintenance records do not indicate that there are failures associated with worn brakes not meeting rejected takeoff energy levels. Moreover, wear indicators on the brakes and required maintenance checks assure that brakes are replaced prior to the point at which they are no longer capable of absorbing the maximum kinetic energy. The commenters presented no evidence substantiating a need for such a test.

A commenter suggested that the accelerate-stop deceleration rate in Table II selected by the manufacturer should be required to be equal to or greater than the deceleration required to produce the performance published in the Aircraft Flight Manual (AFM). However, no basis has been presented to relate requirements in the standard with the AFM as suggested by the commenter. The deceleration values used in certifying wheel-brake assemblies are selected by the manufacturer to obtain an estimated braking capability. The information in the AFM is related to actual aircraft flight test data.

A commenter recommended that for the sake of safety, the accelerate-stop requirement in proposed Table II should be applicable to all aircraft. However, it is not practical to determine an accelerate-stop distance for a single-engine airplane or any rotorcraft. Paragraph 4.2(a)(2) is adopted without change.

#### Paragraph 4.2(a)(3) General Conditions

One commenter suggested that the following sentence be added to paragraph 4.2(a)(3)(ii): "Towards the end

of the accelerate-stop test ( $KE_{RT}$ ), it is permissible to release the brake when the inertia testing machine speed has reduced to not more than 10 knots." It claimed that for some brakes where the value of  $KE_{RT}$  is particularly high, it is possible for the friction elements to seize up at the end of the accelerate-stop thus preventing the brake from being usable for taxi. The suggestion would not be in accord with § 25.109 which requires the airplane to come to a full stop during the accelerate-stop test.

A commenter suggested that the requirement for the brake to be usable for taxi after the accelerate-stop test be qualified by specifying taxi distance, taxi speed, and the number of additional brake applications expected following the deceleration. In view of present service experience there is no safety basis for requiring a brake to be usable after an accelerate-stop test. Accelerate-stop performance is currently predicated upon a condition of nonusable brakes and the allowance for subsequent maintenance prior to the removal of the airplane from the runway. Accordingly, paragraph 4.2(a)(3) is adopted as proposed.

#### Paragraph 4.2(d) Endurance Tests—Hydraulic Brakes.

A commenter pointed out that no consideration is given to the size of the brake equipment in the 5cc maximum leakage test in the standard. It asserted that since leakage varies with the size of the equipment, the 5cc limit appears to unjustly penalize large systems. This commenter recommended the proposed leakage rate be revised by allowing one drop per 25 cycles per 3-inch seal periphery. Another commenter asserted that it would consider its smallest brake a failure if it leaked 5cc. On the other hand, it was claimed that if its largest brake were to leak 5cc, it would consider the leakage minimal. This commenter suggested military standards be adopted, which in effect specify that after 25 cycles, (1) leakage at static seals not exceed a trace, and (2) leakage at moving seals not exceed one drop of fluid per each 3 inches of peripheral seal length. Although several methods of leakage measurements are available, the volumetric approach proposed in the notice gives a uniform standard and 5cc is acceptable for all sizes. Moreover, with reference to using words "trace" and "drop" as in the military standard, such terms do not define an identifiable and enforceable standard. The paragraph is adopted as proposed.

#### Adoption of the Amendment

Accordingly, Parts 23, 25, and 37 of the Federal Aviation Regulations (14 CFR

Parts 23, 25, and 37) are amended as follows, effective December 31, 1979.

### PART 23—AIRWORTHINESS STANDARDS: NORMAL, UTILITY, AND ACROBATIC CATEGORY AIRPLANES

1. By amending § 23.735 by revising paragraph (a)(2) to read as follows:

#### § 23.735 Brakes.

(a) \* \* \*

(2) Instead of a rational analysis, the kinetic energy absorption requirements for each main wheel brake assembly may be derived from the following formula:

$$KE = 0.0443 WV^2/N$$

where—

KE = Kinetic energy per wheel (ft.-lb.);

W = Design landing weight (lb.);

V = Airplane speed in knots. V must be not less than  $V_{SO}$ , the poweroff stalling speed of the airplane at sea level, at the design landing weight, and in the landing configuration; and

N = Number of main wheels with brakes.

### PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

#### § 25.735 [Amended]

2. By amending § 25.735(b) by deleting "§ 25.75" and inserting in place thereof "§ 25.125."

3. By amending § 25.735 by revising paragraph (f)(2) to read as follows:

#### § 25.735 Brakes.

(f) \* \* \*

(2) Instead of a rational analysis, the kinetic energy absorption requirements for each main wheel brake assembly may be derived from the following formula, which assumes an equal distribution of braking between main wheels:

$$KE = 0.0443 WV^2/N$$

where—

KE = Kinetic energy per wheel (ft.-lb.);

W = Design landing weight (lb.);

V = Airplane speed in knots. V must be not less than  $V_{SO}$ , the poweroff stalling speed of the airplane at sea level, at the design landing weight, and in the landing configuration; and

N = Number of main wheels with brakes.

The formula must be modified in cases of unequal braking distribution.

4. By amending § 25.735(g) by deleting the term " $V_{SO}$ " and inserting in place thereof the letter "V".

### PART 37—TECHNICAL STANDARD ORDER AUTHORIZATIONS

5. By revising § 37.172 to read as follows:

**§ 37.172 Aircraft wheels and wheel-brake assemblies—TSO-C26c.**

(a) *Applicability.* This Technical Standard Order prescribes the minimum performance standards that aircraft landing wheels and wheel-brake assemblies must meet in order to be identified with the applicable TSO marking. New models of such equipment which are to be so identified and which are manufactured on or after December 31, 1979, must meet the requirements of the Federal Aviation Administration Standard for Aircraft Wheels and Wheel-Brake Assemblies set forth at the end of this section.

(b) *Marking.* In lieu of the marking requirements of § 37.7, aircraft wheels and wheel-brake assemblies must be legibly and permanently marked with the following information:

- (1) Name of the manufacturer responsible for compliance.
- (2) Serial number, or date of manufacture, or both.
- (3) Part number.
- (4) Applicable technical standard order (TSO) number.
- (5) Size (this marking applies to wheels only).

All stamped, etched, or embossed markings must be located in noncritical areas.

(c) *Data requirements.* (1) In addition to the data specified in § 37.5, the manufacturer must furnish to the Chief, Engineering and Manufacturing Branch, Federal Aviation Administration, in the region in which the manufacturer is located (or, in the case of the Western Region, the Chief, Aircraft Engineering Division), the following technical data:

(i) One copy of the applicable limitations pertaining to installation of wheels and brakes on aircraft, including the weight of the brake assembly, maximum static load rating, maximum limit load rating, maximum accelerate-stop kinetic energy in foot-pounds ( $KE_{RT}$ ), design landing kinetic energy in foot-pounds ( $KE_{DL}$ ), accelerate-stop deceleration in feet-second<sup>2</sup>, design landing stop deceleration in feet/second<sup>2</sup>, applicable speed as specified in paragraph 4.2(a)(1) of the FAA Standard for Aircraft Wheels and Wheel-Brake Assemblies, type of hydraulic fluid used, and the weight of the wheel.

(ii) One copy of the manufacturer's test report.

(2) Upon request of the regional office specified in paragraph (c)(1) of this section, the manufacturer must furnish the applicable maintenance instructions.

(d) *Previously approved equipment.* Wheels and wheel-brake assemblies approved prior to December 31, 1979, may continue to be manufactured under the provisions of their original approval.

**Federal Aviation Administration Standard for Aircraft Wheels and Wheel-Brake Assemblies****1. Purpose.**

This document contains minimum performance standards for aircraft landing wheels and wheel-brake assemblies.

**2. Design and construction.****(a) Design.**

(1) *Lubricant retainers.* Lubricant retainers must retain the lubricant under all operating conditions, prevent the lubricant from reaching braking surfaces, and prevent foreign matter from entering the bearings.

(2) *Removable flanges.* All removable flanges must be assembled onto the wheel in a manner that will prevent the removable flange and retaining device from leaving the wheel if a tire should deflate while the wheel is rolling.

(3) *Adjustment.* When necessary to assure safe performance, the brake mechanism must be equipped with suitable adjustment devices.

(4) *Water seal.* Wheels intended for use on amphibious aircraft must be sealed to prevent entrance of water into the wheel bearings or other portions of the wheel or brake, unless the design is such that brake action and service life will not be impaired by the presence of sea water or fresh water.

(5) *Explosion prevention.* Unless determined to be unnecessary, means must be provided to minimize the probability of wheel and tire explosions which result from elevated brake temperatures.

**(b) Construction.**

(1) *Castings.* Castings must be of high quality, clean, sound, and free from blowholes, porosity, or surface defects caused by inclusions, except that loose sand or entrapped gases may be allowed when the serviceability of the casting has not been impaired.

(2) *Forgings.* Forgings must be of uniform condition and free from blisters, fins, folds, seams, laps, cracks, segregation, and other defects. If strength and serviceability are not impaired, imperfections may be removed.

(3) *Rim surfaces.* For wheels designed for use with a tire and inner tube combination, the surface of the rim between bead seats must be free from defects which would be injurious to the inner tube while mounting the tire or while in service.

(4) *Rim joints.* For wheels designed for use with a tire and inner tube combination, joints in the rim surface and joints between rim surfaces and demountable flanges must be smooth, close fitting, and noninjurious to the inner tube while mounting the tire or while in service.

(5) *Rivets and bolts.* When rivets are used, they must be well headed over, and rivets and bolts coming in contact with the casing or tube must be smooth enough not to damage the tube or casing during normal operation.

(6) *Bolts and studs.* When bolts and studs are used for fastening together sections of a wheel, the length of the threads for the nut extending into and bearing against the sections must be held to a minimum and there must be sufficient unthreaded bearing area to carry the required load.

(7) *Steel parts.* All steel parts, except braking surfaces and those parts fabricated

from corrosion-resistant steel must be cadmium plated or zinc plated or have equivalent protection from corrosion.

(8) *Aluminum parts.* All aluminum alloy parts must be anodized or have equivalent protection from corrosion. This protection must include protection for fuse plug holes, valve stem holes, and other passages.

(9) *Magnesium parts.* All magnesium alloy parts must receive a suitable dichromate treatment or have equivalent protection from corrosion. This protection must include protection for fuse plug holes, valve stem holes, and other passages.

(10) *Bearing and braking surfaces.* The bearings and braking surfaces must be protected during the application of finish to the wheels and brakes.

(11) *Fatigue.* The construction of the wheel must take into account techniques used to improve fatigue resistance of critical areas of the wheel.

**3. Rating.**

(a) Each wheel design must be rated for the following:

(1) S=Maximum static load in pounds (ref. §§ 23.731(b), 25.731(b), 27.731(b), and 29.731(b) of this chapter).

(2) L=Maximum limit load in pounds (ref. §§ 23.731(c), 25.731(c), 27.731(c), and 29.731(c) of this chapter).

(b) Each wheel-brake assembly design must be rated for the following:

(1)  $KE_{DL}$ =Kinetic energy capacity in foot-pounds per wheel-brake assembly, at the design landing rate of absorption.

(2)  $KE_{RT}$ =Kinetic energy capacity in foot-pounds per wheel-brake assembly at the maximum accelerate-stop rate of absorption for wheel-brake assemblies of airplanes certificated under Part 25 of this chapter only.

4. *Qualification tests.* The aircraft wheels and wheel-brake assemblies must be tested as follows and the test data included in the applicant's test report required by § 37.172(c)(1)(ii) of this part.

4.1 *Wheel tests.* To establish the S and L ratings for a wheel, test a standard sample in accordance with the following radial, combined, and static load tests:

(a) *Maximum radial load test.* Test the wheel for yield and ultimate loads as follows:

(1) *Test method.* Mount the wheel with a suitable tire of proper fit installed, on its axle, and position it against a flat nondeflecting surface. The wheel axle must have the same angular orientation to the nondeflecting surface that it will have to the runway when it is mounted on the aircraft and is under the maximum limit load. Inflate the tire to the pressure recommended for the S load with air or water. If water inflation is used, the water must be bled off to obtain the same tire deflection that would result if air inflation were used. Water pressure may not exceed the pressure which would develop if air inflation were used and the tire deflected to its maximum extent. Load the wheel through its axle perpendicular to the flat nondeflecting surface. Deflection readings must be taken at suitable points to indicate deflection and permanent set of the wheel rim at the bead seat.

(2) *Yield load.* Apply to the wheel a load not less than 1.15 times the maximum radial limit load, determined under §§ 23.471

through 23.511 or §§ 25.471 through 25.511, or §§ 27.471 through 27.505, or §§ 29.471 through 29.511 of this chapter, as appropriate. Apply the load with the wheel positioned against the nondeflecting surface, and the valve hole positioned at 90 degrees with respect to the line between the center of the wheel and the point of contact, then with the valve hole positions 180 degrees, 270 degrees, and 0 degrees from the nondeflecting surface. The 90 degree increments must be altered to other positions if the other positions are more critical. Three successive loadings at the 0 degree position may not cause permanent set increments of increasing magnitude. The permanent set increment caused by the last loading at the 0 degree position may not exceed 5 percent of the deflection caused by that loading or 0.005 inches, whichever is greater. The bearing cups, cones, and rollers used in operation must be used for these loadings. There must be no yielding of the wheel such as would result in loose bearing cups, air, or water leakage through the wheel or past the wheel seal, or interference in any critical areas.

(3) *Ultimate load.* Apply to the wheel a load, not less than 2 times the maximum radial limit load for castings and 1.5 times the maximum radial limit load for forgings, determined under §§ 23.471 through 23.511, or §§ 25.471 through 25.511, or §§ 27.471 through 27.505, or §§ 29.471 through 29.511 of this chapter, as appropriate. Apply the load with the same wheel positioned against the nondeflecting surface and the valve hole positioned at 0 degrees with respect to the line between the center of the wheel and the point of contact. The wheel must be able to support the load without failure for at least 3 seconds. The bearing cones may be replaced with conical bushings, but the cups used in operation must be used for this loading. If, at a point of loading during the test, it is shown that the tire will not successfully maintain pressure or if bottoming of the tire on the nondeflecting surface occurs, the tire pressure may be increased to no more than 2 times the rated inflation pressure. If bottoming of the tire continues to occur with this increased pressure, a loading block which fits between the rim flanges and simulates the load transfer of the inflated tire may be used. The arc of wheel supported by the loading block must be no greater than 60 degrees.

(4) If the radial limit load in paragraph 4.1(b) is equal to or greater than the maximum radial limit in paragraph 4.1(a)(2) and (3), the tests specified in paragraphs 4.1(a)(2) and (3) may be omitted.

(b) *Combined radial and side load test.* Test the wheel for the yield and ultimate loads as follows:

(1) *Test method.* Mount the wheel, with a suitable tire of proper fit installed, on its axle, and position it against a flat nondeflecting surface. The wheel axle must have the same angular orientation to the nondeflecting surface that it will have to the runway when it is mounted on the aircraft and is under the combined radial and side load. Inflate the tire to the pressure recommended for the maximum static load with air or water. If water inflation is used, the water must be bled off to obtain the same tire deflection that

would result if air inflation were used. Water pressure may not exceed the pressure which would develop if air inflation were used and the tire deflected to its maximum extent. For the radial load component, load the wheel through its axle perpendicular to the flat nondeflecting surface. For the side load component, load the wheel through its axle parallel to the flat nondeflecting surface. The side load reaction must arise from the friction of the tire or the loading block on the nondeflecting surface. Apply the two loads simultaneously, increasing them either continuously or in increments no larger than 10 percent of the loads to be applied. Alternatively, a resultant load equivalent to the radial and side loads may be applied to the axle. Deflection readings must be taken at suitable points to indicate deflection and permanent set of the wheel rim at the bead seat.

(2) *Yield load.* Apply to the wheel radial and side loads not less than 1.15 times the respective ground loads determined under §§ 23.485, 23.497, and 23.499, or §§ 25.485, 25.495, 25.497, and 25.499, or §§ 27.485 and 27.497, or §§ 29.485 and 29.497 of this chapter, as appropriate. Apply these loads with the wheel positioned against the nondeflecting surface and the valve hole positioned at 90 degrees with respect to the line between the center of the wheel and the point of contact, then with valve hole positioned at 180 degrees, 270 degrees, and 0 degrees from the nondeflecting surface. The 90 degree increments must be altered to other positions if the other positions are more critical. Three successive loadings at the 0 degree position may not cause permanent set increments of increasing magnitude. The permanent set increment caused by the last loading at the 0 degree position may not exceed 5 percent of the deflection caused by that loading, or 0.005 inch, whichever is greater. The bearing cups, cones, and rollers used in operation must be used in this test. There must be no yielding of the wheel such as would result in loose bearing cups, air or water leakage through the wheel or past the wheel seal, or interference in any critical areas. A tire and tube may be used when testing a tubeless wheel only when it has been demonstrated that pressure will be lost due to the inability of a tire bead to remain properly positioned under the load. The wheel must be tested for the most critical inboard and outboard side loads.

(3) *Ultimate load.* Apply to the wheel radial and side loads not less than 2 times for castings and 1.5 times for forgings the respective ground loads determined under §§ 23.485, 23.497, and 23.499, or §§ 25.485, 25.495, 25.497, and 25.499, or §§ 27.485 and 27.497, or §§ 29.485 and 29.497 of this chapter, as appropriate. Apply these loads with the same wheel positioned against the nondeflecting surface and the valve hole positioned at 0 degrees with respect to the center of the wheel and the point of contact. The wheel must be able to support the load without failure for at least 3 seconds. The bearing cones may be replaced with conical bushings, but the cups used in operation must be used for this loading. If, at a point of loading during the test, it is shown that the tire will not successfully maintain pressure or

if bottoming of the tire on the nondeflecting surface occurs, the tire pressure may be increased to no more than 2 times the rated inflated pressure. If bottoming of the tire continues to occur with this increased pressure, a loading block which fits between the rim flanges and simulates the load transfer of the inflated tire may be used. The arc of wheel supported by the loading block must be no greater than 60 degrees.

(c) *Maximum static load test.* Test the wheel for the maximum static load test as follows:

(1) *Test method.* Mount the wheel, with a suitable tire of proper fit installed, on its axle, and position it against a flat nondeflecting surface or a flywheel. The wheel axle must have the same angular orientation to the load surface that it will have to the runway when it is mounted on the aircraft and is under the maximum static load. Inflate the tire to the pressure recommended for the maximum static load "S". The radial load must be applied to the wheel through the axle and perpendicular to the load surface. The side load, when required, must be applied through the wheel axle and parallel to the load surface. For the side load, the wheel axle must be rotated or yawed to the angle which will produce a side load component equal to 0.15 "S" while the wheel is being roll tested.

(2) *Roll test.* The wheel must be tested under the loads and for the distance shown in Table I. At the end of the test there must be no cracks on the wheel and no leakage through the wheel or past the wheel seal, and the bearing cups may not be loosened in the hub.

Table I

Category of aircraft	Load conditions	Roll distance (mics)
Part 25	Maximum static load, "S".....	2000
	Maximum static load, "S" plus 0.15 "S" side load applied in outboard direction.	100
	Maximum static load, "S" plus 0.15 "S" side load applied in inboard direction.	100
Part 23	Maximum static load, "S".....	1000
Part 27 and 29	Maximum static load, "S".....	250

(3) *Roll on Rim Test.* The wheel without a tire must be tested at a speed not less than 10 mph under the loads and distance shown in Table II. The test axle angular orientation with the load surface must approximate that of the airplane axle to the runway under maximum static load. At the end of the test there may be cracks but no fragmentation of the wheel. ( $V_R$  = takeoff speed in knots.)

Table II

Category of aircraft	Load conditions	Roll distance (feet)
Part 25	Maximum static load "S".....	$V_R \times 0.5$

(d) *Pressure test.* Pressure test the wheel in accordance with the following:

(1) *Overpressure test.* The wheel must be hydrostatically tested to withstand without failure for at least 3 seconds application of an

overpressure factor not less than 4.0 for Part 25 airplanes, 3.5 for Part 23 airplanes, and 3.0 for rotorcraft, times the rated inflation pressure determined by the applicant.

(2) *Diffusion test.* The tubeless tire and wheel assembly must hold the rated inflation pressure for 24 hours with no greater pressure drop than 5 percent. This test must be performed after the tire growth has stabilized.

4.2 *Wheel-brake assembly test.* A sample of a wheel-brake assembly design, with a suitable tire of proper fit installed, must meet the following tests to qualify the design for its kinetic energy ratings. The wheel of a wheel-brake assembly must be separately tested under paragraph 4.1. The wheel-brake assembly must be tested with the operating medium specified by the manufacturer.

(a) *Dynamic torque tests.* Test the wheel-brake assembly on the suitable inertial brake testing machine in accordance with the following:

(1) *Speed and weight values.* For airplanes, select either Method I or Method II below to calculate the kinetic energy level which a single wheel and wheel-brake assembly will be required to absorb. For rotorcraft, use Method I.

(i) *Method I.* Calculate the kinetic energy level to be used in the brake testing machine by using the equation:

$$KE = \frac{0.0443 WV^2}{N}$$

Where—

KE=Kinetic energy per wheel-brake assembly (ft.-lbs.);

W=Design landing weight (lbs.);

V=Aircraft speed in knots. V must be not less than  $V_{50}$  the poweroff stalling speed of the aircraft at sea level, at the design landing weight, and the landing configuration. For the accelerate-stop tests applicable only to wheel-brake assemblies for airplanes certificated under Part 25 of this chapter, the manufacturer must determine the most critical combination of takeoff weight and speed;

N=Number of wheels with brakes. For rotorcraft, the manufacturer must calculate the most critical combination of takeoff weight and brake application speed to be used in the above equation.

(ii) *Method II.* The speed and weight values may be determined by other equations based on rational analysis of the sequence of events expected to occur during an accelerate-stop condition or an operational landing at maximum landing weight. The analysis must include rational or conservative values for braking coefficients of friction between the tire and runway, aerodynamic drag, propeller drag, powerplant forward thrust, and, if critical, loss of drag credit for the most adverse single-engine or propeller due to malfunction. Do not consider the decelerating effects of propeller reverse pitch, drag parachutes, and powerplant thrust reversers.

(2) *Test requirements.* The wheel-brake assembly must bring the inertial testing machine to a stop at the average deceleration, and for the number of repetitions specified in Table III without

failure, impairment of operation, or replacement of parts except as permitted in paragraph 4.2(a)(3).

Table III

Category of aircraft	Test
Parts 23 and 25	KE <sub>DL</sub> : 100 design landing stops at a deceleration selected by manufacturer but not less than 10 ft./sec. <sup>2</sup>
Part 25	KE <sub>RTT</sub> : 1 accelerate-stop at a deceleration selected by manufacturer but not less than 6 ft./sec. <sup>2</sup>
Parts 27 and 29	KE <sub>DL</sub> : 20 design landing stops at a deceleration selected by manufacturer but not less than 6 ft./sec. <sup>2</sup>

(3) *General conditions.*

(i) During landing stop tests (KE<sub>DL</sub>), one change of brake lining is permissible. The remainder of the brake assembly parts must withstand the 100 KE<sub>DL</sub> stops without failure or impairment of operation.

(ii) During the accelerate-stop test (KE<sub>RTT</sub>), brake lining and bare disks may be new or used. No less than two landing stop tests must have been completed on the brake prior to this test. The brake must be usable for taxi after the accelerate-stop test to KE<sub>RTT</sub>.

(iii) As used this paragraph, "brake lining" is either individual blocks of wearing material or disks which have wearing material integrally bonded to them. "Bare disks" are plates or drums which do not have wearing material integrally bonded to them.

(d) *Brake structural torque test.* Apply load S and a torque load specified in paragraph 4.2(b) (1) or (2), as applicable, for at least 3 seconds. Rotation of the wheel must be resisted by a reaction force transmitted through the brake or brakes by an application of at least maximum brake line pressure or brake cable tension in the case of a nonhydraulic brake. If such pressure or tension is insufficient to prevent rotation, the friction surface may be clamped, bolted, or otherwise restrained while applying the pressure or tension.

(1) For landing gears with only one wheel per landing gear strut, the torque load is 1.2 SR where R is the normal loaded radius of the tire at rated inflation pressure under load S.

(2) For landing gears with multiple wheels per landing gear strut, the torque load is 1.44 SR where R is the normal loaded radius of the tire at rated inflation pressure under load S.

(c) *Overpressure—hydraulic brakes.* The brake with actuator piston extended to simulate a maximum worn condition must withstand hydraulic pressure for at least 3 seconds, equal to the following:

(1) For airplanes, 2 times the maximum brake line pressure available to the brakes.

(2) For rotorcraft, 2 times the pressure required to hold the rotorcraft on a 20 degree slope at design takeoff weight.

(d) *Endurance tests—hydraulic brakes.* The hydraulic brake assembly must be subjected to an endurance test during which the total leakage may not exceed 5cc and no malfunction may occur during or upon completion of the test. Minimum piston travel during the test may not be less than the

maximum allowable piston travel in operation. The tests must be conducted by subjecting the hydraulic brake assembly to—

(1) 100,000 cycles for airplanes, and 50,000 cycles for rotorcraft, of application and release of the average hydraulic pressure needed in the KE<sub>DL</sub> tests specified in paragraph 4.2(a)(2) except that manufacturers using Method II in conducting the tests specified in paragraph 4.2(a)(2) must subject the wheel-brake assembly to the average of the maximum pressures needed in those tests. The piston must be adjusted so that 25,000 cycles for airplanes, and 12,500 cycles for rotorcraft, are performed at each of the four positions where the piston would be at rest when adjusted for 25, 50, 75, and 100 percent of the wear limit; and

(2) 5,000 cycles for airplanes, and 2,500 cycles for rotorcraft at the maximum system pressure available to the brakes.

(Secs. 313(a), 601, and 603, Federal Aviation Act of 1958, as amended (49 U.S.C. 1354(a), 1421, and 1423); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

Note.—The FAA has determined that this document involves a regulation which is not considered significant under Executive Order 12044, as implemented by DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A copy of the final evaluation prepared for this action is contained in the regulatory docket. A copy of it may be obtained from the person listed under the heading "FOR FURTHER INFORMATION CONTACT" set forth earlier in this document.

Issued in Washington, D.C. November 21, 1979.

Langhorne Bond,  
Administrator.

[FR Doc. 79-36843 Filed 11-29-79; 8:45 am]

BILLING CODE 4910-13-M

## 14 CFR Parts 25 and 37

[Docket No. 18887; Amendment Nos. 25-49 and 37-46]

### Aircraft Tires; Airworthiness and Performance Standards

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

**SUMMARY:** The purpose of these amendments is to incorporate updated and improved minimum performance standards applicable to main landing gear and nose wheel aircraft tires, and more comprehensive transport category airplane type design standards covering tire loads and speed ratings. These revisions are necessary in the interest of safety to meet increasingly severe tire operating conditions. The amendment for tire standards specifies a cutoff date after which tire manufacturers can no longer identify certain high-speed tires as approved under earlier standards.

**DATE:** Effective date: December 31, 1979.

**FOR FURTHER INFORMATION CONTACT:** Mr. Raymond E. Ramakis, Regulatory Projects Branch, AVS-24, Safety Regulations Staff, Associate Administrator for Aviation Standards, Federal Aviation Administration, 800 Independence Ave., SW., Washington, D.C. 20591; telephone (202) 755-8716.

**SUPPLEMENTARY INFORMATION:**

**Background**

During recent years, there has been a series of accidents and incidents involving large commercial jet airplanes, particularly wide-body types, that involved failures of tires, wheels, brakes, and anti-skid devices. Some of these events resulted in complete destruction of three airplanes and in injuries and fatalities to occupants.

Beginning in 1975, the FAA placed strong emphasis on intensifying its ongoing safety surveillance efforts with respect to aircraft tires and began an analysis of tire failures and potential corrective actions. The FAA determined that complex landing gear systems, unprecedented high maximum aircraft operating weights, and the operation of all aircraft at higher taxi speeds over long taxi distances were among the significant factors in the tire failures.

As a result of its evaluation, the FAA developed tentative changes to the standards for both tires and wheel-brake assemblies. These efforts led to joint FAA-industry meetings in 1976 and 1977 during which the proposed standards were further revised and updated to reflect the latest technology and to meet operating conditions. Notice No. 78-16 (43 FR 57261; December 7, 1978) was issued to upgrade standards for aircraft wheels and wheel-brake assemblies and a final rule on that subject is published in this issue of the *Federal Register*. With respect to tires, on March 9, 1979, the FAA issued Notice No. 79-7 (44 FR 16430; March 19, 1979), which proposed regulatory changes directed at upgrading and improving the minimum performance standards applicable to main and nose wheel aircraft tires (§ 37.167 Aircraft Tires—TSO-C62b), and more comprehensive transport category airplane type design standards covering tire loads and speed ratings (§ 25.733). That Notice also proposed that all tires approved under the TSO procedures and manufactured after a specified future date meet the new standards.

This rulemaking action is one of a number of related steps in a program to resolve the tire problem. Though not part of this rulemaking action, the FAA has taken or has under consideration other actions intended to improve tire

maintenance practices and to update requirements for tires installed on airplanes currently in service. Advisory Circular No. 20-97, High Speed Tire Maintenance and Operational Practices, dated 1/28/77, and Maintenance Bulletin 32-3, (1/28/77) provide guidance material to assist the operating personnel concerned with tire maintenance. In the regulatory area, the FAA, in this issue of the *Federal Register*, is proposing an operating rule that would require certain airplanes to be equipped with tires meeting the new TSO standards by specified future dates.

Interested persons have been afforded an opportunity to participate in the making of these amendments and due consideration has been given to all matter presented. The more significant comments received in response to Notice No. 79-7 are discussed below. A number of substantive, editorial, and clarifying changes have been made to the proposed rules based on relevant comments received and on further review within the FAA. Except for minor editorial and clarifying changes and the changes discussed below, these amendments and the reasons for their adoption are the same as those contained in Notice 79-7.

These amendments implement the President's directive (Executive Order 12044) that regulations be as simple as possible and not impose unnecessary burdens on the economy or on the regulated public. They also are designed to promote the public interest by increasing safety and the efficiency of aircraft through use of improved equipment.

**Discussion of Comments**

Thirty-three individual sets of public comments were submitted in response to Notice 79-7. Many of the commenters submitted multiple lengthy recommendations. While the great majority of the commenters were in general agreement with the objectives of the proposals, a number of them suggested changes, requested clarification or guidance, and offered specific criticisms. Other commenters proposed changes that are beyond the scope of this rule making and they are not discussed here.

**§ 25.733**

Several commenters questioned the requirements in proposed § 25.733. Under proposed § 25.733(a), one commenter stated that the operational inflation pressure rating associated with the load rating should be provided. This is not practicable as these pressures, prescribed by the airframe

manufacturer, will vary depending upon the maximum operating gross weight of the airplane. Another commenter recommended a clarification of paragraph (a)(1) to include consideration of the most critical combination of loads up to maximum ramp weight and deletion of engine thrust and inertial effects. The commenter pointed out that because of variations in the position of the airplane center of gravity, the highest tire load condition is not always at maximum ramp weight of the airplane and that engine thrust and inertial effects are minor and should be considered under the proposed 7 percent load factor. Clearly, the most critical combination of airplane center of gravity and airplane weight (up to maximum ramp weight) should be considered in the establishment of the maximum load rating of the tire. However, the engine thrust and inertia effects should not be excluded from this established rating since, while these effects are minor, the 7 percent is intended to cover other unequal load conditions. Finally, in response to two other comments, paragraphs (a)(1) and (a)(2) are clarified with respect to the application of a single tire installation. With the changes noted, § 25.733(a) is adopted as proposed.

Under proposed § 25.733(b), one commenter suggested that paragraphs (b)(1), (b)(2), and (b)(3) be changed to reflect the critical airplane maximum weight, up to the maximum ramp weight and landing weight, as applicable. For the reasons discussed under paragraph (a), the most critical combination of airplane center of gravity and airplane maximum weight up to maximum ramp or maximum landing weight, as applicable, should be assessed in determining the tire load rating. One commenter suggested that the ability of a nose wheel tire to sustain an increased load by a factor of 1.5 in paragraph (b)(2) and (b)(3) be demonstrated while another commenter under paragraph (b)(3) recommended terminology change from "wheel" to "wheel-tires." However, service experience does not warrant imposing the burden of demonstrating the designed 1.5 nose wheel load factor and no justification was given for changing "wheels" to "wheel-tires". Section 25.733(b) is adopted as proposed with the changes noted.

Under proposed § 25.733(c), one commenter pointed out that paragraphs (c)(1) and (c)(2) would be meaningless unless a statement concerning an increase in tire inflation pressure (due to the 1.07 factor) was included. Since the proposed 7 percent load factor in

paragraph (c)(1) can only be maintained with a corresponding increase in inflation pressure, a provision for required inflation pressure necessary to assure the application of this derating factor is therefore included in the proposed operating rule published in this issue of the *Federal Register*. Although another commenter suggested clarifying the term "axle" with respect to additional configurations, the description of the landing gear axle is sufficiently clear to accommodate all multiple main wheel tire configurations. Two commenters stated that paragraph (c)(2) should include a reference to paragraph (b)(3) for nose wheel tires. One of the commenters also suggested that the word "tire" be added and that the paragraph include the 1.07 factor. In addition, one commenter questioned the absence of the 1.5 factor as proposed in paragraph (b). For clarity, paragraph (c)(2) should contain the paragraph reference (b)(3) and the additional word "tire" at the end of the paragraph. However, service experience does not warrant application of the 7 percent load factor to nose wheel tires. The 1.5 factor is not appropriate to main wheel tires since it is applied only to the nose wheel tire on the basis of additional takeoff and landing loads. Proposed § 25.733(c), (c)(1), and (c)(2) are adopted with the changes noted.

Recommended changes to proposed § 25.733(d) included a provision for allowing intentional tire contact from items such as rub strips, spin brakes, and guide rails. Another recommendation concerned the need to specify tire clearance on the basis of dynamic growth conditions. Paragraph (d) is revised to provide for intentionally designed contact as suggested. However, any other contact, considering both static and dynamic conditions, would not be allowed under this paragraph. One commenter stated that paragraph (d) should also apply to nonretractable landing gear systems. However, because of the different factors involved, the FAA will consider whether requirements for nonretractable gear may be necessary in future rulemaking actions.

Finally, a new paragraph was recommended by one commenter to provide that failure of any one tire on multiple wheel aircraft during takeoff, rejected takeoff, or landing should not cause hazardous loss of braking or directional control of the airplane. The objective of § 25.733, as well as that of § 25.735, is to preclude the hazardous loss of braking and airplane directional control due to system failure. The upgraded standard here being adopted

is directed at reducing single and multiple tire failures. Since the revision will accomplish this objective, the recommended change is not necessary.

#### § 37.167 Aircraft Tires—TSO—C62c

No substantive comments were received on the applicability provisions in § 37.167(a) and it is adopted as proposed.

With respect to the marking requirement under proposed § 37.167(b), one commenter recommended in paragraph (b)(1) that the "brand name" be deleted as the manufacturer's name was considered sufficient. Another commenter recommended that, to be useful, the qualification test date or date of manufacture should be included. The deletion of brand name in lieu of manufacturer name is not appropriate, since a manufacturer may produce multiple brands. The need for dates is not justified since a qualification test date is already contained under approval records, and the date of manufacture can be readily obtained from the tire serial number. Under paragraph (b)(2), a commenter suggested adding the phrase "over 120 mph" after speed rating and adding "ply rating" in lieu of "load rating" since it is recognized by all standardization bodies. The same commenter suggested the deletion of "skid depth" and "manufacturer part number" as not being necessary.

The load rating should not be eliminated since, like the speed rating, it identifies the maximum operating load condition the tire should not exceed. The speed rating marking for a tire operating at 120 mph and below should not be deleted for the same reason. Contrary to the commenter's assertion, the skid depth and manufacturer's part number are required because they identify a given design and the characteristics of a given design which may affect tire performance. There is nothing to preclude a ply rating marking on a tire if desired by the tire manufacturer. Section 37.167(b) is adopted as proposed.

Proposed § 37.167(c) sets forth data requirements. One commenter recommended that the work "mold" be added before "skid depth" in proposed § 37.167(c)(1) because the mold skid-depth can be controlled. The requirement has been changed accordingly. Under the same paragraph one commenter suggested the addition of nominal and actual load radius, including tolerances, at rated load and inflation pressure. Another commenter suggested the submission of load-deflection curves or test results. To ensure completeness of data, it is

appropriate to add nominal and actual tire loaded radii including tolerances at rated load and inflation pressure. The submission of load deflection information is necessary to assure compatibility between tires installed on an aircraft. Proposed § 37.167(c)(1) is revised accordingly.

Section 37.167(c)(2) would require the tire manufacturer to furnish applicable maintenance and repair instructions. One commenter suggested that the tire manufacturer consult with the aircraft manufacturer to ensure necessary input to the instructions. Three other commenters objected outright to the proposal. One stated that this would imply mandatory use of that information by an operator or retread agency, both of whom are certificated by the FAA. Another suggested that recapping or retreading procedures should be in a separate document and not mixed in with new tire requirements. The third commenter suggested the deletion of the entire paragraph on the ground that retreading of aircraft tires is not a repair. According to the last commenter, the fact that retreaders use different materials, different numbers of reinforcing plies, different shaped molds, different tread patterns, different skid depth, etc., results in a product (retread) that is not a repaired new tire but a new product, one ingredient of which is a used carcass. On this basis it was suggested that a Technical Standard Order (TSO) governing the performance standards required for a retread should be issued. According to the commenter, this could be very similar to the new tire TSO and require virtually all of the certification required of a new tire.

Requiring a manufacturer to supply the information outlined in § 37.167(c)(2) is consistent with other regulations, such as §§ 23.1529, 25.1529, 27.1529, and 33.5, that require manufacturers to supply maintenance and inspection information with their products. The reason the criteria were outlined in the proposal was to identify specific maintenance and inspection information that a manufacturer must provide with its product. This information is intended to be made available to persons who maintain tires. It is not considered necessary that such information be the result of consultation with the airframe manufacturer. There are widely varying types of operations in the airlines and wide variation in airlines' capability to develop tire maintenance and inspection data. Not all users and repair facilities have this capability and of necessity must rely on data developed by the manufacturer as a basis to maintain and

inspect tires. To require a new tire to be built under one TSO and then maintained under a separate TSO is impractical. Under the maintenance performance rules of § 43.13 (a) and (b), a product after undergoing maintenance shall be at least equal to its original or properly altered condition. This makes it necessary for a tire on which maintenance was performed to continue to meet the requirements outlined in the TSO under which it was built. However, if a tire undergoing repair were altered, it would be considered a new product and it would be necessary for the tire to be tested for approval under the TSO and be approved for use on each aircraft of which it would be a part. Section 37.167(c)(2) is therefore adopted as proposed.

Section 37.167(d) proposed a two-year cutoff date after which all newly manufactured tires could no longer be identified as approved under earlier tire standards. One set of commenters recommended the exclusion of low-speed tires on the basis that retesting and related costs are not supported by adverse service experience. They contended that low-speed tires should be requalified only when the new ratings differ from those ratings on tires previously approved. Another group commenting on high speed tires recommended that the 2-year cutoff date be deleted, stating that the new TSO requirements should be applied to existing aircraft only on a case-by-case basis as supported by tire service history data. They further indicated that installing new and heavier tires on existing aircraft would require further analysis and flight tests to assure that the aircraft and systems would not be adversely affected. Several commenters of this group recommended extending the cutoff date to periods up to 5 years because of the limited dynamometer capacity available, costs, and possible tire shortages. One of the commenters pointed out that tires which the FAA wants to have qualified in a shorter time could be accomplished through the issuance of a proposed operating rule. Finally, two commenters questioned the application of the proposal to all tires when the preamble noted implementation of an operating rule affecting only certain aircraft.

Information contained in the many comments received in response to § 37.167(d) indicates that the proposed 2-year cutoff date for manufacturing of all tires to the old standards is too restrictive. Specifically, it would have a significant and adverse impact on the manufacture of low-speed tires which do not share the same failure history as

reported on high-speed tires. Based upon a review of service experience, which for low-speed tires has been good, and after further consideration, the FAA has determined that low-speed tires need not be requalified and should be excluded from the proposed cutoff requirements. This exclusion applies to all presently approved tires rated at speeds up to 160 mph.

In this issue of the **Federal Register**, the FAA is proposing an operational requirement for retrofit installation by certain rates of new high-speed tires (above 160 mph) on certain transport category airplanes whose tire problems and hazards are more clearly identified. That action, however, does not preclude the need to phase out the manufacture of tires approved under older standards for use on other aircraft operating at high gross weights or speeds or both. With respect to high-speed tires (rated over 160 mph), several commenters recommended extending the proposed 2-year cutoff date for manufacture under older standards. In their view, the 2-year date is too early and they specifically recommended that 3 years would be more realistic. The commenters pointed out that the cutoff must be consistent with availability of tires meeting the new standard. The controlling factors for this availability are the limited number of dynamometers industry-wide that can be used to test each tire model and the time required to redesign, retest, and then manufacture the large number of tire models involved. These and related factors, which are discussed in detail in the preamble of the notice published in this issue of the **Federal Register**, are used in arriving at dates by which certain transport category airplanes can be retrofitted with tires meeting the new standard. Based on the comments and data submitted, and upon reconsideration of the matter, the FAA has determined that discontinuance of manufacture of older high-speed tires by a date 3 years after the effective date of the new TSO standard is consistent with the development and manufacture of tires to the new standard to provide the necessary improvement in safety. This cutoff date will impose no undue economic burden in tire manufacturers or operators since it will provide adequate time for development of newly designed tires yet permit manufacture of older design tires to the extent necessary to assure an adequate supply pending completion of retrofit.

#### Standard for Aircraft Tires

##### Section 1.0 Purpose.

Two commenters recommended that the proposed new standard be limited to

tires for transport category airplanes and that Part 27 and Part 29 rotorcraft tires be excluded. One of the commenters contended that the proposed changes result from service experience on wide-bodied jet airplanes, and that they were unaware of comparable service experience on rotorcraft of any size or category. Another commenter stated similar reasons for excluding tires for Part 23 aircraft and suggested the establishment of two standards. The standards should not be limited to large aircraft since the requirements in the standard take into account the variation in tire performance as characterized by small and large aircraft. Moreover, as previously discussed, low-speed tires approved to older standards may continue to be manufactured under the terms of their original approval. Paragraph 1.0 is adopted as proposed.

##### Section 2.0 Scope.

One commenter recommended the inclusion of "inflation pressure" in connection with the load rating. While a rated inflation pressure must be established to provide for the design load rating of the tire, such information will be obtained by the FAA under the proposed data requirements in § 37.167(c). Therefore, there is no basis for including inflation pressure also under paragraph 2.0. Paragraph 2.0 is adopted as proposed.

##### Section 3.0 Material requirement.

One commenter recommended that the requirement also address processes which could equally affect performance. Another commenter pointed out the differences of materials between small and large aircraft tires and suggested that the suitability of materials should be predicated upon a substantiated service experience involving a tire of similar size and speed rating. The requirement is directed to the suitability of materials and the comments do not justify expanding the requirement to cover processes or explain why service experience should be limited in the narrow way suggested. Paragraph 3.0 is adopted as proposed.

##### Section 4.0 Design and construction.

No comments were received on individual requirements relating to unbalance, balance marker, and overpressure, paragraphs 4.1, 4.2, and 4.3, and they are adopted as proposed.

In proposed paragraph 4.4.1 of the standard relating to ambient temperature, several commenters objected to the optional use of analysis since it was claimed no analysis method is known. Another commenter

recommended that the paragraph be deleted or changed to read: " \* \* \* shown by analysis that the physical properties of the tire materials have not been degraded by exposure of the tire to. \* \* \* " That commenter pointed out that the recommended change would allow tire sample tests in lieu of requiring the use of facilities for full-scale tests which are not available. Another commenter questioned the severity of the proposed test temperatures and duration and questioned whether it would prohibit operations on aircraft cleared at lesser temperatures. In response to these comments, an optional analysis method should be allowed since an analysis method may exist or might be developed. The proposed tests need not nor were they intended to involve the performance of a full-scale tire. Therefore, the recommended change for applicable tests or analysis to substantiate the physical properties of the tire materials is adopted. Based on service experience, the 24-hour test period is not overly severe and the actual operational tire temperatures are consistent with those prescribed. Finally, although questioned by one commenter, the temperature limits specified are clearly stated.

In proposed paragraph 4.4.2 of the standard, concerning wheel rim heat, one commenter questioned the basis for the prescribed temperature and duration, while two other commenters objected to the application of the 300° F wheel bead seat temperature to nose wheel tires and low-speed tires. They suggested that paragraph 4.4.2 apply only to high-speed tires or that, in the case of nose wheel tires, they be identified for non-use on wheels subjected to operational temperatures in excess of 250° F. Not all aircraft tires operate within the proposed temperature environment and exposure period. To accommodate different tire designs which, by application, are not to be operated near the prescribed 300° F temperature, paragraph 4.4.2 is revised to allow low-speed tires or nose-wheel tires to be tested or analyzed at other highest wheel bead seat temperatures expected to be encountered during normal operations. Although questioned by one commenter, the provisions for an optional analysis method is retained for the reasons previously discussed in connection with ambient temperature. For consistency with paragraph 4.4.1 the requirement has been reworded to require that the physical properties of the tire materials not be degraded by exposure to the specified conditions.

Two commenters suggested wording changes to paragraph 4.5 concerning tread design, but these were not substantively justified or indicated as necessary for clarity. The paragraph is adopted as proposed.

Under paragraph 4.6, Slippage, one commenter questioned the basis for not allowing slippage within the first five cycles. The prescribed five dynamometer cycles have been an accepted industry practice to assure that the tire is properly fitted to the wheel during and prior to the initiation of tests. Experience obtained from past testing indicates that a period of five landing cycles is satisfactory. Paragraph 4.6 is adopted as proposed.

Considering it to be a necessary requirement, one commenter recommended addition of a new paragraph 4.7 covering an air leakage test. The recommended leakage test is an essential performance requirement and, since it is consistent with the current industry practice and will not result in any undue burden, the recommendation is adopted as new paragraph 4.7.

#### *Section 5.0 Ratings.*

Under paragraph 5.1, load ratings, two commenters recommended a change to provide that tires of proper load ratings be selected in accordance with the applicable FAR, but that the ratings for selection be established by a recognized industry standardization body or by the Administrator. The applicant should have the right to select or establish a tire load rating as long as it is in compliance with the applicable FAR sections. As provided under § 25.733, the Administrator approves the load rating once established. The recommendations which would provide that some third-party organization establish the tire load rating is, therefore, not accepted.

One commenter recommended that the manufacturer be required to make tire deflection information available to assure compatibility of tires on the same axle while two other commenters recommended that the deflection provision be deleted since it is not part of the load rating or required under the TSO. To eliminate the confusion between "tire deflection" and "percent deflection" one of the commenters recommended the addition of a new paragraph and term "loaded radius" which is defined as the distance between the axle centerline and the operating surface of a loaded tire. The commenter also recommended that the tire load rating be established by the tire manufacturer and approved by the Administrator. Another commenter suggested changing the second sentence

to identify tire deflection at loads up to 1.5 times the rated load and rated inflation pressure.

Under the standard a tire need not be designed to any specific load-deflection criterion. However, it is necessary that a tire's deflection characteristics at various loads and inflation pressures be identified to assure that a given tire design is compatible with another tire during its installation on an aircraft. In this issue of the *Federal Register*, the FAA is proposing as part of a new operating rule that the deflection between two tires mounted on a single axle be within acceptable limits at various operational loads up to maximum rated loads. The identified deflection information, which will form the basis for this acceptance, is required under § 37.167(c). Deflection at higher loads up to 1.5 times rated load must be included under this information. The description of tire deflection in terms of "percent deflection" can be deleted in view of a more appropriate "loaded radius" definition. Since, as provided under § 37.167(c), the manufacturer or TSO applicant must furnish the tire load rating, there is no basis for also referencing the tire manufacturer under paragraph 5.1. Therefore, the identification of a more appropriate loaded radius criterion is provided under a new paragraph 5.3 and § 37.167(c). Paragraph 5.1 is revised accordingly by deleting the sentences pertaining to percent deflections and radial distance.

Under paragraph 5.2, Rated inflation pressure, one commenter suggested a change to specify that the inflation pressure would be established by the tire manufacturer and approved by the Administrator. However, in view of the data requirements of § 37.167(c), there appears no need to further reference the manufacturer in paragraph 5.2. Two commenters recommended changing the ambient temperature to 68°F or to the extreme limits specified in paragraph 4.4.1 and identifying the rated inflation pressure under no load. The view to define the rated inflation pressure under either a rated load or no load was also shared by another commenter. In connection with these comments, a specific ambient or extreme temperature should not be specified since design temperatures differ among manufacturers. The recommendation to establish rated inflation pressure at extreme operating temperatures was unsupported. However, there is merit in the suggestion that the temperature on which a manufacturer bases a tire load and pressure rating should be identified. This is necessary to clarify the rated

inflation pressure which, in accordance with long standing operating practice, is based upon a no load condition. Paragraph 5.2 is revised accordingly.

#### Section 6.0 Dynamometer test requirements.

One commenter suggested that since tire deterioration is not necessarily visible, the paragraph should state " \* \* \* without significant deterioration of the carcass, tread, or inflation pressure. \* \* \* " A commenter also recommended that lack of such deterioration be verified by test. Another commenter recommended that since tread damage is permitted in the overload test, the paragraph should be changed to read " \* \* \* other than normal expected wear except as noted in paragraph 6.3.3.3." Inclusion of the word "significant" would not result in a more specific requirement. Neither has sufficient justification been shown to require further test verification in view of the new acceptance criteria established under paragraph 6.3.3.3 for the single tire test specimen at the end of the overload test. However, as recommended, there is no basis to exclude tread damage which is permitted in the overload test. Paragraph 6.0 is revised accordingly.

One commenter suggested that paragraph 6.1.1 relating to tire test load be clarified by specifying "test surface" rather than "flywheel". However, the requirement proposed appears clear. In paragraph 6.1.2, one commenter recommended clarification with respect to inflation pressure. The commenter pointed out that rated inflation pressure applies to an unloaded tire and that the actual pressure under rated load will be higher for both the flat surface and the flywheel. Another commenter recommended that the percentage deflection at rated load should be the basis for determining the minimum loaded radius of the tire against the dynamometer. It was also recommended that the ambient temperature be identified. There is merit to the recommended clarification of paragraph 6.1.2 since the change would eliminate misinterpretation of test pressure as related to the rated inflation pressure identified under paragraph 5.3. Moreover, for the reasons previously discussed in connection with load ratings, there is reasonable basis for determining the minimum loaded radius and the identification of ambient temperatures as well as adopting the recommendation that the ambient temperature be identified by the manufacturer.

To provide a more realistic assessment of tire capability, two

commenters recommended in connection with paragraph 6.1.3 that the high-speed dynamometer tests, including the overload takeoff test, be conducted on one tire test specimen. The proposed option for allowing a new tire to be tested to the overload test requirements of paragraph 6.3.3.3 was based on the need to perform destructive inspection on the original test specimen which had been subject to previous taxi and takeoff test cycles in accordance with paragraph 6.3.3.2 and 6.3.3.4. While destructive type inspection allows for a positive assessment of internal deterioration of the tire, such an inspection procedure can be performed after the tire has been subjected to all the dynamometer tests including the overload test. The use of one test specimen throughout the total test series represents a realistic condition which assures the overload capability after having been previously subjected to operational takeoff and taxi cycles. Paragraph 6.1.3 has been revised accordingly.

In paragraph 6.2.1 concerning test temperatures for low-speed tires, several commenters recommended the deletion of " \* \* \* " at any point on the tire " \* \* \* " in the second sentence. One commenter stated that it is not necessary to determine the starting temperature at every point on the tire for the stated 90 percent of test cycles, and that the starting temperature for the remaining 10 percent of the cycles is unimportant. Two other commenters suggested that the "hottest point" be identified and used since this point controls its recycle time during the test and more nearly equates to the contained air temperature. There is merit to the suggestion that the test temperature be measured at the hottest point and the requirement has been changed accordingly. However, there is no basis for deleting the temperature requirements for 10 percent of test cycles since the prescribed conditions provide for test uniformity with respect to an acceptable minimum starting temperature. Finally, one commenter questioned the proposed temperature and recommended that a more realistic starting temperature should be obtained from known operational data and that it should be measured on the basis of contained air at the bottom of the tire. In this connection, a need exists to base temperatures on defined operating conditions. However, precise operational information is not readily available at this time, and the temperatures prescribed are intended to set safe limits. Research and development programs are presently

being undertaken to obtain useful realistic operating temperature data which can be correlated with laboratory tests.

Paragraph 6.2.2 of the standard states kinetic energy requirements. One commenter recommended that the FAA re-examine the need for retaining the deceleration (energy absorption) type dynamometer requirements, since dynamometers are presently available to test all tires to the takeoff profile specification. However, it does not appear advisable to eliminate the use of the energy absorption type dynamometer since information from manufacturers indicates that takeoff type equipment is not available for testing low-speed tires. As discussed under paragraph 6.3, the limited takeoff dynamometer facilities must be used for high-speed tire tests. Another commenter indicated that the energy conversion constant was in error and should be 0.011 as currently required. As discussed in the preamble of Notice 79-7, the proposed energy constant .011 (derived in terms of mph) was changed to .0113 to accommodate its use with an equivalent factor .015 (derived in terms of knots) established under the military tire specification MIL-T-5041G. This change will allow the testing of both civil and military tires to the same kinetic energy value. Both of the constants, .011 and .015, were derived on the basis of general assumptions relative to the absorption of kinetic energy by the brake and tire. The change to the more correct value is relatively small and will not be significant to manufacturers, particularly since tires (speed rating of 160 mph or less) may continue to be manufactured under previous approvals as discussed under § 37.167(d). Paragraph 6.2.2 is adopted as proposed.

In paragraph 6.2.4 of the standard three commenters pointed out an error which existed in the formula for computing kinetic energy absorption time. Paragraph 6.2.4 is revised to correct this error.

One commenter on paragraph 6.3 of the standard applicable to high-speed tires recommended a rewording to more accurately define the high-speed test condition and to require the airframe manufacturer to define and supply the takeoff details. The paragraph is revised to clarify and further define the high-speed test condition. However, the recommendation that the included test curves must be supplied by the airframe manufacturer is not accepted. Tire manufacturers may produce and qualify tires to any set of load-speed-time data they choose. The use of these tires is

adequately regulated by the provisions of FAR Part 25, which appears to meet the commenter's concern.

For the high-speed tire test temperature requirements of paragraph 6.3.1, two commenters recommended that the specified temperature be that of the hottest point of the carcass but not less than 120° F for the taxi test and not less than 105° F (as stated in paragraph 6.2.1) for all other tests. The recommendation was based on the higher tread temperature experienced in the laboratory as compared to in-service conditions. It was pointed out that the higher recycle temperature (120° F) may result in a tire design detrimental to economic field operation with no increase in safety and that 105° is used as the starting takeoff temperature under Department of Defense Specification MIL-T-5041G. Another commenter indicated that the 120° F starting temperature may not be representative and that a time between cycles should be established relating to actual operating conditions. Two commenters recommended that the 120° F apply to the tire air or carcass temperature at the start of 90 percent of the test cycles except for the overload test which should begin at 105° F. The FAA agrees that the measurement of tire temperature should be made at the hottest point. However, the 105° F starting temperature for takeoff cycles and alternate test permits achieving a peak test temperature consistent with actual peak temperature seen in service. Since a higher test temperature would not provide any clear benefit and could unnecessarily restrict design freedom, the 105° F starting temperature is adopted. For the remaining 10 percent of the cycles of each group, the starting temperature is specified as 80° F to provide a temperature consistent with the temperature gradient provided in paragraph 6.2.1.

In paragraph 6.3.2 of the standard, two commenters recommended a minimum reserve factor or 5 mph margin for each speed rating. However, current service experience does not support the need for such margins and no justification was provided by the commenters. The paragraph with its included table of values is adopted as proposed.

Paragraph 6.3.3 of the TSO standard specifies dynamometer cycles. One commenter suggested that the requirement be more realistic. A further comment recommended that the number of test cycles be representative of the number of flights an average tire lasts before its first retread and that the tests include landing cycles and yaw conditions. Another commenter

suggested that the requirement be clarified with respect to the number of tires tested. It was also suggested that the dynamometer cycle include side-load conditions. However, the increase in the number of cycles as originally proposed is sufficient to provide for a satisfactory assessment of the minimum performance of a tire considering both tread retention and overall carcass strength. With respect to the recommended side-load test, it is recognized that the lateral loading of tires during maneuvers such as turning does result in overload conditions which have a definite effect on tire life and performance. However, the prescribed overload tests under paragraph 6.3.3.3 and taxi tests under 6.3.3.4 provide for such conditions. Paragraph 6.3.3 is adopted as proposed.

In paragraph 6.3.3.1 covering symbol definitions, one commenter recommended that to be consistent with Figures 1 and 2, the symbol "L<sub>2</sub>" should be redefined as the rated load. Two other commenters suggested that "L<sub>2</sub>" be redefined as zero tire load or a load equal to 1.07 times the tire load at the maximum ramp weight. Another commenter recommended that the symbol "L<sub>0</sub>" be defined as the tire load at the start of test cycle. To provide a correct definition of symbols appropriate to Figures 1 and 2, the symbol "L<sub>2</sub>" is applied to a zero tire load and the symbol "L<sub>0</sub>" is applied to the tire load at the start of the cycle but not less than the rated load. The test loads required under this paragraph will, by definition, verify the rated load and, as applicable to main wheels under § 25.733(c)(1), take into account the 1.07 factor.

In response to a comment, paragraph 6.3.3.2 is amplified to indicate specifically the proper application of Figures 1 and 2 to takeoff cycles.

For the overload takeoff cycle of paragraph 6.3.3.3, one commenter recommended that a used tire (equal to half wear) be subjected to the test. In a similar vein, another commenter indicated it was unrealistic for a new tire to be used for the test when the object of the TSO is to clear the tire design for the first tread life. The comments are valid to the extent they recommend that some form of used tire, rather than a new tire meet the test. However, it is not necessary to specify a used tire. A tire that has been subjected to previous taxi and takeoff tests represents a realistic condition for assessing overload capability. The reason for this is to assure that the tire design has an overload capacity taking into account the tire service life. One

commenter pointed out that maintaining the tire rated inflation pressure is an ambiguous statement and suggested that at the completion of test and when the temperature is stabilized the tire should not lose pressure at a rate greater than 10 percent per hour. It was also suggested the paragraph include a statement that good condition of tread is not required. Two other commenters recommended that the tire should maintain its pressure integrity at the completion of test. The tire need not retain rated pressure at the end of test but should not lose more than 10 percent pressure within a 24-hour period. A 24-hour pressure retention period provides a more representative measure of acceptability. To assure the pressure integrity of the tire at the completion of test, paragraph 6.3.3.3 is revised to state that requirement.

In paragraph 6.3.3.4 relating to taxi cycles, one commenter recommended that the taxi test be followed immediately by the takeoff test to represent a more realistic operating condition. Another commenter suggested that the time between taxi cycles be established at more realistic conditions. While such "spectrum-type" taxi-takeoff tests represent one approach in assessing tire performance, there is insufficient information to indicate such tests approach realistic conditions or that they provide any improvement in ability to assess tire performance. The procedures set forth under this revised standard represent an upgrading of testing which is as stringent as can be achieved within the present state of the art. The FAA will continue to monitor developments in this field and the record of new tire performance, and may elect at some future time to further strengthen test requirements if it should be necessary to provide a higher level of performance with respect to improved tread retention and carcass strength. Paragraph 6.3.3.4 is adopted as proposed.

Under the alternate dynamometer tests proposed in paragraph 6.3.3.5, two commenters indicated that the equation in paragraph 6.3.3.5.2 represents a severe energy condition which is not supported by service experience. It was recommended that the tire be tested to the 160 mph speed but at the existing kinetic energy defined under paragraph 6.2.2. Two commenters also suggested that the paragraph be rewritten to provide that landing simulation tests be permitted only for tires with speed ratings of 160 mph or less. This need for limiting the alternate tests to 160 mph was pointed out by another commenter who indicated that some high-speed

tires (for use above 160 mph) existed which had carcass failures after they were qualified to the reverse takeoff (energy absorption) type test. The commenter questioned the availability of the load-speed-time data and recommended that it be made available by the manufacturers. One commenter pointed out that the 160 mph landing speed does not account for higher speed conditions that are associated with large turbojet aircraft. Finally, other commenters objected to the proposed change in testing tires up to 160 mph indicating that it would have an adverse economic impact on them and that the high cost of installing a new dynamometer to meet the 160 mph test requirement would have a resultant inflationary cost and not yield any additional benefit to the consumer.

Paragraph 6.3.3.5 provides an alternate and equivalent test for tires in the 120-160 mph range when the load-speed-time data needed for the takeoff type test (paragraph 6.3.1) has not been established. The energy level proposed for the alternate dynamometer test may be too conservative in view of current service experience which indicates that tires tested to existing energy levels perform satisfactorily. Since most new tire designs will be supported by load-speed-time data, the alternate test will retain the existing energy levels while requiring that the tire be tested at its maximum speed rating (160 mph) to demonstrate its high speed integrity. As provided in paragraph 6.3, all tires with speeds above 160 mph will be tested on the takeoff type dynamometer equipment. It should be noted that the costs of these tests to low-speed tire manufacturers are minimal since most low-speed tires are operated below the 120 mph limit even though they are rated at 160 mph under the existing standards. Therefore, the testing requirement is unchanged from the existing standard. In this connection, the requalification of tires with a speed range of 160 mph and below will not be required under § 37.167(d). Moreover, the current definition of low-speed tire (160 mph or less) has been changed to 120 mph or less, which will benefit the low-speed tire manufacturers with limited equipment capability and help assure that tires are tested at speeds and associated energy values which are experienced in service. The requirements are restated under a new paragraph to clarify the optional application to tires with ground speeds of 160 mph or less. Paragraph 6.3.3.5 as revised is redesignated and adopted as paragraph 6.3.4.

#### Section 7.0 Requalification tests.

Two commenters recommended that the word "carcass" be deleted from the listing of characteristics since the carcass of the lower ply rating tire need not be identical to that of the same size tire with a higher ply rating. The recommendation is adopted. One commenter suggested that high-speed tires be exempted from the paragraph unless there is a specified percent by which the load and speed should be lower. However, the FAA is not aware of service experience to indicate that a high speed tire with a lesser ply rating should be exempted. Finally, a commenter recommended that requalification of a low-speed tire to the new standards not be required if the speed, load, and inflation pressure ratings are the same as on a tire previously approved under the existing standard. As previously discussed in connection with revised paragraph § 37.167(d), such a provision is now effective for low-speed tires previously approved.

In the proposed Figure 1, one commenter suggested simulating the combined effects of the tire rolling loads together with the rolling distance required by a rejected takeoff at that speed. The same commenter recommended that the test load curve be above the aircraft load-speed-time curve by at least 7 percent. However, as previously discussed, the combined taxi-takeoff-landing test cycle represents one approach in assessing tire performance. The test procedures are considered to be at the present state-of-the-art and will provide a higher level of performance with respect to improved tread retention and carcass strength. It should be noted that the 1.07 factor applies solely to the load rating defined and established under § 25.733, and thus the added 7 percent must be included under the test load and appropriate load-speed-time curve as requested by the commenter. Another commenter recommended that Figure 2 be renumbered to Figure 1 with title changed to "Graphic Representation of a Universal Load-Speed-Time Cycle" to show the preferred method first. In addition, the commenter stated that in Figures 1 and 2, "L<sub>0</sub>" should be "L<sub>2</sub>", that "RD" should apply to "T<sub>2</sub>", and that "T<sub>2</sub>-T<sub>1</sub>=3 seconds." The proposed figures are revised accordingly.

#### Adoption of the Amendment

Accordingly, Parts 25 and 37 of the Federal Aviation Regulations (14 CFR Parts 25 and 37), are amended as follows, effective December 31, 1979.

#### PART 25—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

1. By revising § 25.733 to read as follows:

##### § 25.733 Tires.

(a) When a landing gear axle is fitted with a single wheel and tire assembly, the wheel must be fitted with a suitable tire of proper fit with a speed rating approved by the Administrator that is not exceeded under critical conditions and with a load rating approved by the Administrator that is not exceeded under—

(1) The loads on the main wheel tire, corresponding to the most critical combination of airplane weight (up to maximum ramp weight), center of gravity position, and the effect of engine thrust reacted by inertia at the airplane center of gravity; and

(2) The loads corresponding to the ground reactions in paragraph (b) of this section, on the nose wheel tire, except as provided in paragraphs (b)(2) and (b)(3) of this section.

(b) The applicable ground reactions for nose wheel tires are as follows:

(1) The static ground reaction for the tire corresponding to the most critical combination of airplane weight (up to maximum ramp weight) and center of gravity position with a force of 1.0g acting downward at the center of gravity. This load may not exceed the load rating of the tire.

(2) The ground reaction of the tire corresponding to the most critical combination of airplane weight (up to maximum landing weight) and center of gravity position combined with forces of 1.0g downward and 0.31g forward acting at the center of gravity. The reactions in this case must be distributed to the nose and main wheels by the principles of statics with a drag reaction equal to 0.31 times the vertical load at each wheel with brakes capable of producing this ground reaction. This nose tire load may not exceed 1.5 times the load rating of the tire.

(3) The ground reaction of the tire corresponding to the most critical combination of airplane weight (up to maximum ramp weight) and center of gravity position combined with forces of 1.0g downward and 0.20g forward acting at the center of gravity. The reactions in this case must be distributed to the nose and main wheels by the principles of statics with a drag reaction equal to 0.20 times the vertical load at each wheel with brakes capable of producing this ground reaction. This nose tire load may not exceed 1.5 times the load rating of the tire.

(c) When a landing gear axle is fitted with more than one wheel and tire assembly, such as dual or dual-tandem, each wheel must be fitted with a suitable tire of proper fit with a speed rating approved by the Administrator that is not exceeded under critical conditions, and with a load rating approved by the Administrator that is not exceeded by—

(1) 1.07 times the loads specified in paragraph (a)(1) of this section on each main wheel tire; and

(2) Loads specified in paragraphs (a)(2), (b)(1), (b)(2), and (b)(3) of this section on each nose wheel tire.

(d) Each tire installed on a retractable landing gear system must, at the maximum size of the tire type expected in service, have a clearance to surrounding structure and systems that is adequate to prevent unintended contact between the tire and any part of the structure or systems.

#### PART 37—TECHNICAL STANDARD ORDER AUTHORIZATIONS

2. By revising § 37.167 to read as follows:

##### § 37.167 Aircraft Tires—TSO-C62c.

(a) *Applicability.* This technical standard order (TSO) prescribes the minimum performance standards that tires, excluding tailwheel tires, must meet in order to be identified with the applicable TSO marking. Tires which are to be so identified and which are manufactured on or after December 31, 1979, must meet the requirements of the "Federal Aviation Administration Standard for Aircraft Tires," effective December 31, 1979, set forth at the end of this section.

(b) *Marking.* In lieu of the marking requirements of § 37.7(d), aircraft tires must be legibly and permanently marked at least with the following:

(1) Brand name and the name or registered trademark of the manufacturer responsible for compliance.

(2) Speed rating, load rating, size, skid depth, serial number, and the manufacturer's part number and plant code.

(3) Applicable technical standard order (TSO) number.

(c) *Data requirements.* (1) In addition to the data specified in § 37.5, the manufacturer must also furnish to the Chief, Engineering and Manufacturing Branch, Federal Aviation Administration (or, in the case of the Western Region, the Chief, Aircraft Engineering Division), in the region in which the manufacturer is located, one copy, or copies as otherwise requested

by the regional office, of the following technical data: speed rating, load rating, rated inflation pressure, tire size, width, outside diameter, mold skid depth, nominal loaded radius at rated load and inflation pressure, permissible tolerance on the nominal loaded radius, the actual loaded radius of the test tire at rated load and inflation pressure, weight, static unbalance of the test tire, wheel rim designation, manufacturer's part number and, for high-speed tires, a load deflection curve at loads up to 1.5 times load rating, and a summary of the load-speed-time parameters used in the dynamometer tests. As used in this section, the term "high-speed tire" means a tire tested at a speed greater than 120 mph.

(2) The manufacturer must also furnish the applicable maintenance and repair instructions to the regional office identified in paragraph (c)(1) of this section. The maintenance data provided by the manufacturer must include inspection criteria for tires to determine eligibility for used tires to be continued in service. Recapping procedures must be included in the maintenance information along with any special repair methods applicable to the tire and special nondestructive inspection techniques.

(d) *Previously approved equipment.*

(1) Notwithstanding § 37.3 (a) and (b) of this part and the provisions of any specific previous TSO approval, after December 31, 1982, no person may identify or mark a tire having a speed rating above 160 mph with TSO numbers TSO-C62, TSO-C62a, or TSO-C62b.

(2) Aircraft tires, except for those specified in paragraph (d)(1) of this section, approved prior to December 31, 1979, may continue to be manufactured under the provisions of their original approval.

#### Federal Aviation Administration Standard for Aircraft Tires

1.0 *Purpose.* This document contains minimum performance standards for new aircraft tires, excluding tailwheel tires, that are to be identified as meeting the standards of TSO-C62c.

2.0 *Scope.* These minimum performance standards apply to aircraft tires having speed and load ratings that are established on the basis of the speed and loads to which the tires have been tested.

3.0 *Material requirement.* Materials must be suitable for the purpose intended. The suitability of the materials must be determined on the basis of satisfactory service experience or substantiating dynamometer tests.

4.0 *Design and construction.*

4.1 *Unbalance.* The moment (M) of static unbalance in inch ounces may not be greater than the value determined using the formula,  $\text{moment (M)} = 0.025D^2$  rounded off to the

next lower whole number. D = maximum outside diameter of the tire in inches.

4.2 *Balance marker.* A balance marker, consisting of a red dot, must be affixed on the sidewall of the tire immediately above the bead to indicate the lightweight point of the tire. The dot must remain for any period of storage plus the original tread life of the tire.

4.3 *Overpressure.* The tire must withstand for at least 3 seconds a pressure of at least 4.0 times the rated inflation pressure (as specified in paragraph 5.2) at ambient temperature.

4.4 *Temperature.*

4.4.1 *Ambient.* It must be substantiated by applicable tests or shown by analysis that the physical properties of the tire materials have not been degraded by exposure of the tire to the temperature extremes of not higher than  $-40^\circ\text{F}$  and not lower than  $+160^\circ\text{F}$  for a period of not less than 24 hours at each extreme.

4.4.2 *Wheel rim heat.* It must be substantiated by the applicable tests or shown by analysis that the physical properties of the tire materials have not been degraded by exposure of the tire to a wheel bead seat temperature of not lower than  $300^\circ\text{F}$  for at least 1 hour, except that low-speed tires or nose-wheel tires may be tested or analyzed at the highest wheel-bead seat temperatures expected to be encountered during normal operations.

4.5 *Tread design.* Changes in materials that affect performance or changes in number or location of tread ribs and grooves or skid depth increases, made subsequent to the tire qualification, are major changes and must be substantiated by dynamometer tests in accordance with paragraph 6.0.

4.6 *Slippage.* Tires tested in accordance with the dynamometer tests provided by paragraph 6.0 may not slip on the wheel rim during the first five dynamometer cycles. Slippage that subsequently occurs may not damage the tube, valve, or the air seal of the tire bead of tubeless tires.

4.7 *Leakage.* After an initial 12-hour minimum stabilization period, the tire must be capable of retaining air pressure with a loss of pressure not exceeding 5 percent in 24 hours from the initial pressure equal to the rated inflation pressure.

5.0 *Ratings.*

5.1 *Load ratings.* The load ratings of aircraft tires must be established in accordance with the provisions under §§ 23.733, 25.733, 27.733, and 29.733 of this chapter, in effect on December 31, 1979, as appropriate.

5.2 *Rated inflation pressure.* The rated inflation pressure must be established at an identified ambient temperature on the basis of the rated load as established under paragraph 5.1.

5.3 *Loaded radius.* The loaded radius is defined as the distance from the axle centerline to a flat surface for a tire initially inflated to the rated inflation pressure and then loaded to its rated load against the flat surface. The nominal loaded radius, the allowable tolerance on the loaded radius, and the actual loaded radius for the test tires must be identified.

6.0 *Dynamometer test requirements.* The tire may not fail the applicable dynamometer

tests specified herein or have visible signs of deterioration other than normal expected tread wear except as provided in paragraph 6.3.3.3.

6.1 *General.* The following conditions apply to both low-speed and high-speed tires when these tires are subjected to the applicable dynamometer tests:

6.1.1 *Tire test load.* Unless otherwise specified herein for a particular test, the tire must be forced against the dynamometer flywheel at not less than the rated load of the tire during the entire roll distance of the test.

6.1.2 *Test inflation pressure.* The test inflation pressure must be the pressure required at an identified ambient temperature to obtain the same loaded radius against the flywheel of the dynamometer as the loaded radius for a flat surface as defined in paragraph 5.3 of this standard. Adjustments to the test inflation pressure may not be made to compensate for increases due to temperature rise occurring during the tests.

6.1.3 *Test specimen.* A single tire specimen must be used in the applicable dynamometer tests specified herein.

6.2 *Low speed tires.* Tires operating at ground speeds of 120 mph or less must withstand 200 landing cycles on a dynamometer at the following test temperature and kinetic energy and using either test method A or test method B.

6.2.1 *Test temperature.* The temperature of the air contained in the tire or of the carcass measured at the hottest point of the tire must be not lower than 105°F at the start of at least 90 percent of the test cycles. For the remaining 10 percent of the test cycles, the contained air or carcass temperature must be not lower than 80°F at the start of each cycle. Rolling the tire on the flywheel is acceptable for obtaining the minimum starting temperature.

6.2.2 *Kinetic energy.* The kinetic energy of the flywheel to be absorbed by the tire must be calculated as follows:

$KE_C = CWV^2 = 162.7W =$  Kinetic energy in foot pounds.

where

$C = 0.0113,$

$W =$  Load rating of the tire in pounds,

$V = 120$  mph.

6.2.3 *Test method A—variable mass flywheel.* The total number of dynamometer landings must be divided into two equal parts having speed ranges shown below. If the exact number of flywheel plates cannot be used to obtain the calculated kinetic energy value or proper flywheel width, a greater number of plates must be selected and the dynamometer speed adjusted to obtain the required kinetic energy.

6.2.3.1 *Low-speed landings.* In the first series of 100 landings, the maximum landing speed is 90 mph and the minimum unlanding speed is 0 mph. The landing speed must be adjusted so that 56 percent of the kinetic energy calculated under paragraph 6.2.2 will be absorbed by the tire. If the adjusted landing speed is calculated to be less than 80 mph, the following must be done: The landing speed must be determined by adding 28 percent of the kinetic energy calculated under paragraph 6.2.2 to the flywheel kinetic energy at 64 mph, and the unlanding speed determined by subtracting 28 percent of the kinetic energy calculated under paragraph 6.2.2 from the flywheel kinetic energy at 64 mph.

6.2.3.2 *High-speed landings.* In the second series of 100 landings, the minimum landing speed is 120 mph and the nominal unlanding speed is 90 mph. The unlanding speed must be adjusted as necessary so that 44 percent of the kinetic energy calculated under paragraph 6.2.2 will be absorbed by the tire.

6.2.4 *Test method B—fixed mass flywheel.* The total number of dynamometer landings must be divided into two equal parts having speed ranges indicated below. Each landing must be made in a time period,  $T$ , calculated so that the tire will absorb the kinetic energy determined under paragraph 6.2.2. The time period must be calculated using the equation:

$$T_C = \frac{KE_C}{\left( \frac{KE_W(UL) - KE_W(LL)}{T_L(UL) - T_L(LL)} \right) - \left( \frac{KE_W(UL) - KE_W(LL)}{T_W(UL) - T_W(LL)} \right)}$$

For the 90 mph to 0 mph test, the equation reduces to:

$$T_C = \frac{KE_C}{\left( \frac{KE_W(UL)}{T_L(UL)} \right) - \left( \frac{KE_W(UL)}{T_W(UL)} \right)}$$

where:

$T_C =$  Calculated time, in seconds, for the tire to absorb the required kinetic energy.

$KE_C =$  Kinetic energy, in foot pounds, the tire is required to absorb during each landing cycle.

$KE_W =$  Kinetic energy, in foot pounds, of the flywheel at given speed.

$T_L =$  Coast down time, in seconds, with rated tire load on flywheel.

$T_W =$  Coast down time, in seconds, with no tire load on flywheel.

(UL) = Subscript for upper speed limit.

(LL) = Subscript for lower speed limit.

6.2.4.1 *Low-speed landings.* In the first series of 100 landings, the tire must be landed

against the flywheel with the flywheel having a peripheral speed of not less than 90 mph. The flywheel deceleration must be constant from 90 mph to 0 mph in the time  $T_C$ .

6.2.4.2 *High-speed landings.* In the second series of 100 landings, the tire must be landed against the flywheel with the flywheel having a peripheral speed of not less than 120 mph. The flywheel deceleration must be constant from 120 mph to 90 mph in the time  $T_C$ .

6.3 *High-speed tires.* Except as provided in the alternate test, tires operating at ground speeds greater than 120 mph must be tested on a dynamometer in accordance with paragraph 6.3.3. The curves to be used as a basis for tests under paragraph 6.3.3 must be established in accordance with the provisions of §§ 23.733 or 25.733, as appropriate. The load at the start of the test must be equal to the rated load of the tire. The load at any time during the test must be equal to the load shown on the established curve at that speed times the rated load of the tire divided by the initial load-speed-time curve load of the tire. Alternate tests involving a landing sequence for tires operating at ground speeds greater than 120 mph and not over 160 mph are set forth in paragraph 6.3.4.

6.3.1 *Test temperature.* The temperature of the air contained in the tire or of the carcass measured at the hottest point of the tire must be not lower than 120°F at the start of at least 90 percent of the test cycles specified in paragraph 6.3.3.4 and at least 105°F at the start of the overload test (6.3.3.3) and of at least 90 percent of the test cycles specified in paragraphs 6.3.3.2 and 6.3.4. For the remaining 10 percent of each group of cycles, the contained air or carcass temperature must be not lower than 80°F at the start of each cycle. Rolling the tire on the dynamometer is acceptable for obtaining the minimum starting temperature.

6.3.2 *Dynamometer test speeds.* Applicable dynamometer test speeds for corresponding maximum ground speeds are as follows:

Maximum ground speed of aircraft, mph		Speed rating of tire mph	Minimum dynamometer speed at $S_n$ , mph
Over	Not Over		
120	160	160	160
160	190	190	190
190	210	210	210
210	225	225	225
225	235	235	235
235	245	245	245

For ground speeds over 245 mph, the tire must be tested to the maximum applicable load-speed-time requirements and appropriately identified with the proper speed rating.

6.3.3 *Dynamometer cycles.* The test tire must withstand 50 takeoff cycles, 1 overload takeoff cycle, and 10 taxi cycles described below. The sequence of the cycles is optional.

6.3.3.1 *Symbol definitions.* The numerical values which are used for the following symbols must be determined from the applicable airplane load-speed-time data:

$L_0 =$  Tire load at start of takeoff, pounds (not less than rated load).

$L_1$  = Tire load at rotation, pounds.

$L_2$  = Zero tire load (liftoff).

RD = Roll distance, feet.

$S_0$  = Zero tire speed.

$S_1$  = Tire speed at rotation, mph.

$S_2$  = Tire speed at liftoff, mph (not less than speed rating).

$T_0$  = Start of takeoff.

$T_1$  = Time to rotation, seconds.

$T_2$  = Time to liftoff, seconds.

6.3.3.2 *Takeoff cycles.* For these cycles the loads, speeds, and distance must conform to either Figure 1 or Figure 2. Figure 1 defines a test cycle that is generally applicable to any aircraft. If Figure 2 is used to define the test cycle, the loads, speeds, and distance must be selected based on the most critical takeoff conditions established by the applicant.

6.3.3.3 *Overload takeoff cycle.* The cycle must duplicate the takeoff cycles specified under paragraph 6.3.3.2 except that the tire load through the cycle must be increased by a factor of at least 1.5. Upon completion of the overload takeoff cycle, the tire must be capable of retaining air pressure with the loss of pressure not exceeding 10 percent in 24 hours from the initial test pressure. Good condition of the tire tread is not required.

6.3.3.4 *Taxi cycles.* The tire must withstand at least 10 taxi cycles on a dynamometer under the following test conditions:

Number of test cycles	Minimum tire load, lbs.	Minimum speed mph	Minimum roll distance, ft.
8	Rated load.....	40	35,000
2	1.2 times rated load.	40	35,000

6.3.4 *Alternate dynamometer tests.* For tires with a speed rating of 160 mph, test cycles which simulate landing may be used in lieu of the takeoff cycles specified in paragraphs 6.3.3.2 and 6.3.3.3. The tire must withstand 100 test cycles at rated load in accordance with paragraph 6.3.4.1 followed by 100 test cycles at rated load in accordance with paragraph 6.3.4.2.

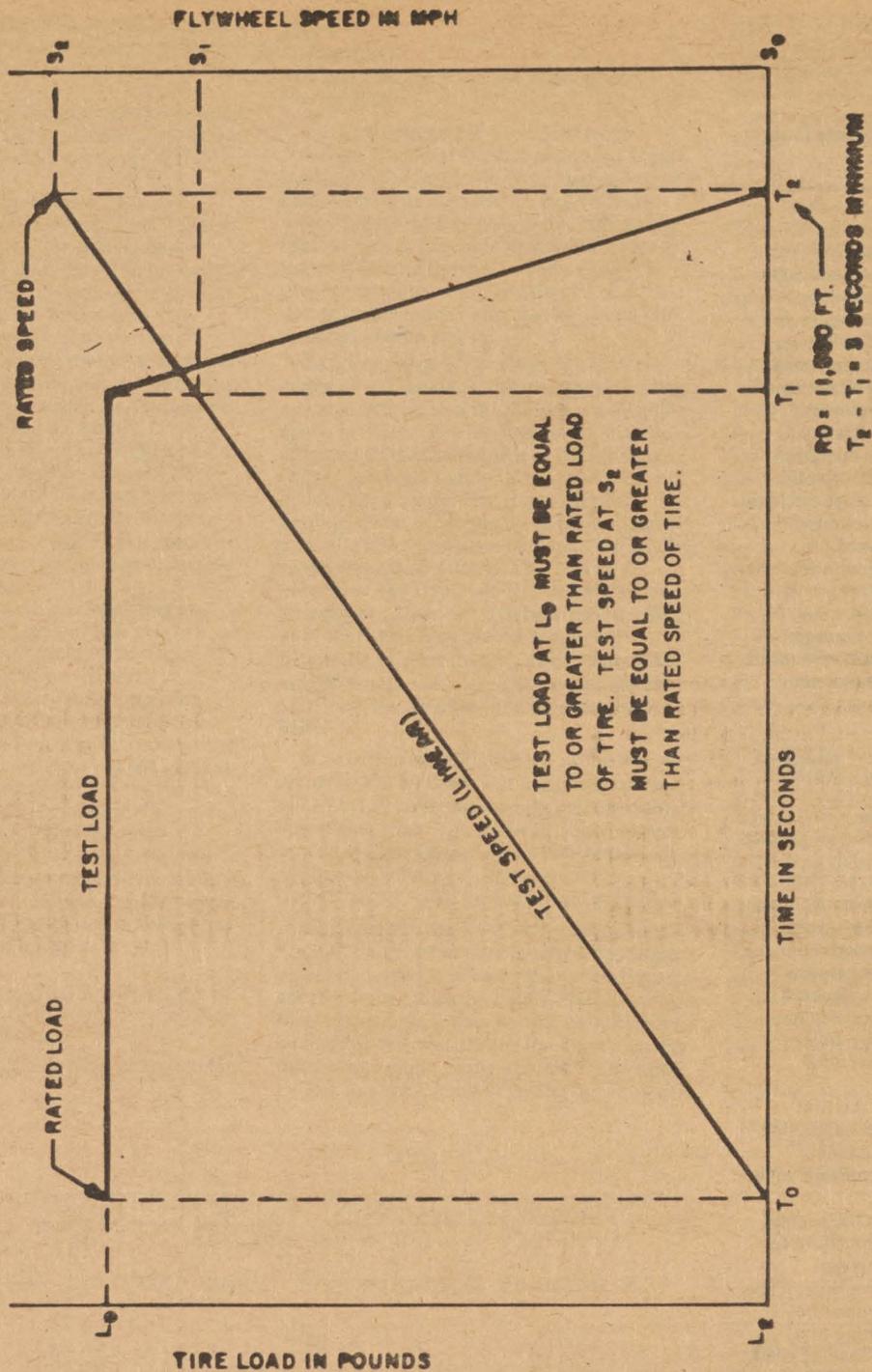
6.3.4.1 *Low-speed landings.* In the first series of 100 landings, the test procedure for low-speed landings established under paragraphs 6.2.3 or 6.2.4, as appropriate, must be followed.

6.3.4.2 *High-speed landings.* In the second series of 100 landings, the test procedure for low-speed landings established under paragraphs 6.2.3 or 6.2.4, as appropriate, must be followed, except that the tire must be landed against the flywheel rotating at a speed of 160 mph with the rated load applied for the duration of the test. The unlanding speed must be adjusted as necessary in order that 44 percent of the kinetic energy, as calculated in paragraph 6.2.2, is absorbed by the tire during the series of tests.

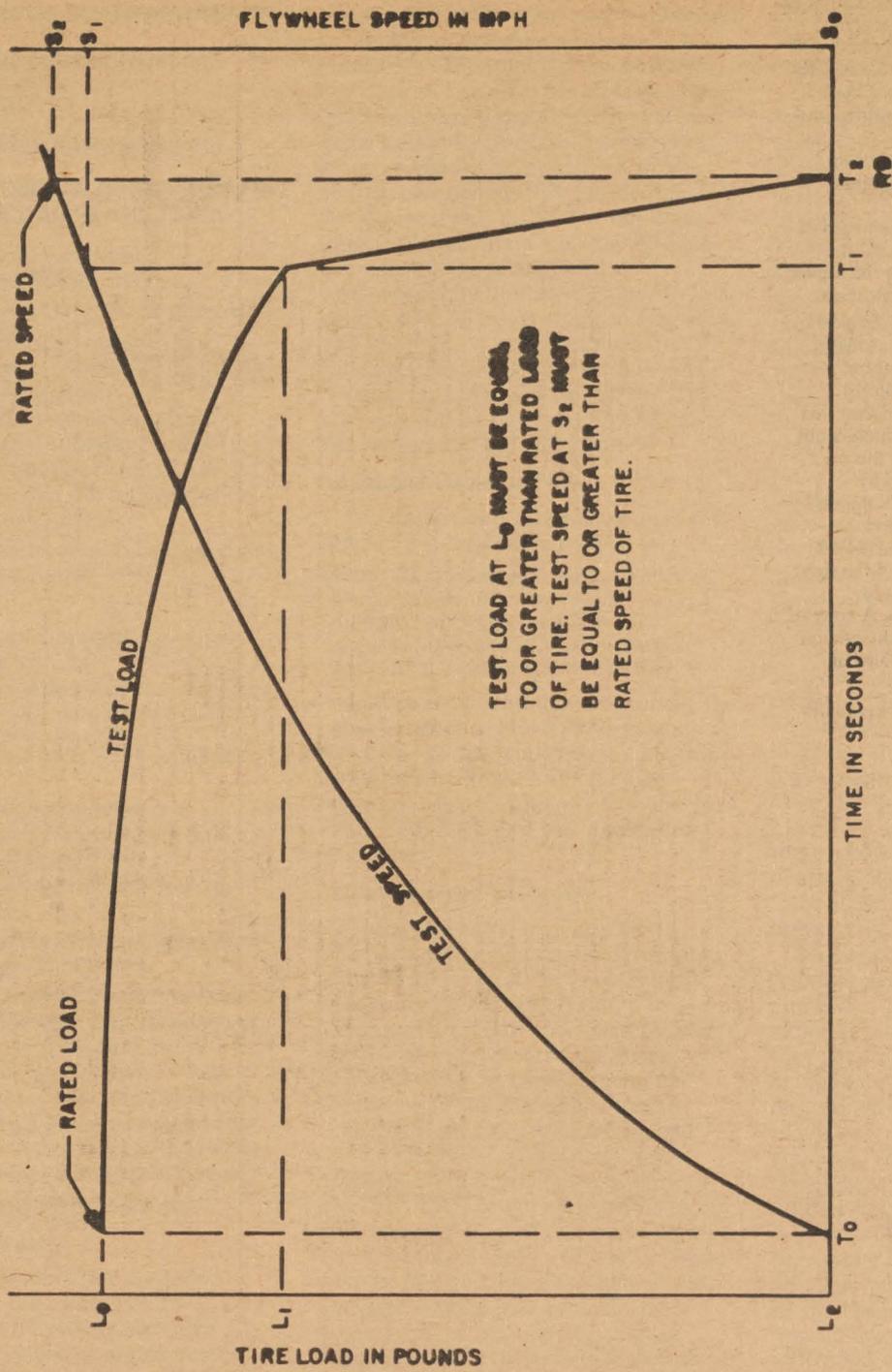
BILLING CODE 4910-13-M

FIGURE 1

GRAPHIC REPRESENTATION OF A UNIVERSAL LOAD-SPEED-TIME TEST CYCLE



**FIGURE 2**  
 GRAPHIC REPRESENTATION OF A RATIONAL LOAD-SPEED-TIME TEST CYCLE



BILLING CODE 4910-13-C

7.0 *Requalification tests.* Requalification in accordance with paragraph 6.0 of a given load rated tire required as a result of a tread design or material change will automatically qualify the same changes in a lesser load rated tire of the same size, speed rating, and skid depth provided—

7.1 The lesser load rated tire has been qualified to the applicable requirements specified in this standard; and

7.2 The ratio of qualifications testing load to rated load for the lesser load rated tire does not exceed the same ratio for the higher load rated tire at any given test condition.

(Secs. 313(a), 601 and 603, Federal Aviation Act of 1958, as amended (49 U.S.C. 1354(a), 1421 and 1423); sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c)).)

**Note.**—The FAA has determined that this document involves a regulation which is not considered to be significant under the procedures and criteria prescribed by Executive Order 12044 and as implemented by the Department of Transportation Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). A copy of the final evaluation prepared for this action is contained in the regulatory docket. A copy of it may be obtained by contacting the person identified under the caption "For Further Information Contact".

Issued in Washington, D.C., on November 21, 1979.

**Langhorne Bond,**

*Administrator.*

[FR Doc. 79-36644 Filed 11-28-79; 8:45 am]

BILLING CODE 4910-13-M

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 91**

[Docket No. 19793; Notice No. 79-20]

**PART 91—GENERAL OPERATING AND FLIGHT RULES AIRPLANE TIRES****AGENCY:** Federal Aviation Administration (FAA), DOT.**ACTION:** Notice of proposed rulemaking.**SUMMARY:** This notice proposes to amend the general operating and flight rules to require the installation of improved airplane tires on certain turbojet-powered transport category airplanes. This notice results from incidents involving tire failures on commercial jet airplanes.**DATES:** Comments must be received on or before February 27, 1980.**ADDRESS:**

Comments on this proposal may be mailed in duplicate to:

Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket (AGC-24), Docket No. 19793, 800 Independence Ave., S.W., Washington, D.C. 20591.

Or delivered in duplicate to:

Room 916, 800 Independence Ave., S.W., Washington, D.C. 20591.

Comments delivered must be marked:

Docket No. 19793.

Comments may be inspected at Room 916 between 8:30 a.m. and 5:00 p.m.

**FOR FURTHER INFORMATION CONTACT:**

Mr. Raymond R. Ramakis, Regulatory Projects Branch, AVS-24, Safety Regulations Staff, Associate Administrator for Aviation Standards, Federal Aviation Administration, 800 Independence Ave., S.W., Washington, D.C. 20591, Telephone (202) 755-8716.

**SUPPLEMENTARY INFORMATION:****Comments Invited**

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Comments relating to any significant environmental or economic impact that might result because of the adoption of this proposal may also be submitted. Communications should identify the regulatory docket or notice number and be submitted in duplicate to the address specified above. All communications received on or before the closing date for comments specified above will be considered by the Administrator before taking action on the proposed rule. The proposal

contained in this notice may be changed in the light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA public contact concerned with the substance of the proposal will be filed in the Rules Docket. Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 19793." The postcard will be date and time stamped and returned to the commenter.

**Additional Copies of Notice**

Any person may obtain a copy of this NPRM by submitting a request to:

Federal Aviation Administration, Office of Public Affairs, Attention: Public Information Center, APA-430, 800 Independence Ave., S.W., Washington, D.C. 20591, Telephone (202) 426-8058.

Each communication must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRM's should also request a copy of Advisory Circular No. 11-2 which describes the application procedure.

**Background and Discussion**

During recent years, a number of accidents and incidents involving large commercial jet airplanes, particularly wide-body types, have resulted from failures of tires. Many of these accidents resulted in injuries and fatalities to occupants and, in three of them, the airplane was completely destroyed.

Beginning in 1975, the FAA placed special emphasis on intensifying its ongoing safety surveillance of aircraft tires. The FAA began an analysis of tire failures and potential corrective actions. The FAA found that the advent of large wide-body type aircraft designed with complex landing gear systems, their unprecedented high operating gross weights, and the operation of aircraft at higher taxi speeds over long taxi distances were among the significant factors in the tire failures.

The FAA, in this issue of the Federal Register, is adopting standards to upgrade and improve the minimum performance standards applicable to main and nose wheel aircraft tires (§ 37.167, Aircraft Tires—TSO-C62c) and more comprehensive transport category airplane type design standards covering tire loads and speed ratings. These new standards also specify that after 1982, tires with a speed rating

above 160 mph manufactured under a TSO approval must meet the new TSO standards.

To minimize tire failures due to severe tire operating conditions, the FAA is proposing to require the installation of airplane tires meeting new TSO-C62c on certain turbojet-powered transport category airplanes by specified dates. These airplanes, both wide-body and standard-body designs, have been selected on the basis of a significant number of tire failure occurrences reported during the period from January 1973 to April 1978. During this period, the average fleet size was 313 wide-body airplanes, and 46 occurrences were reported for those designs. During the same period, the average fleet size was 1,624 standard-body airplanes, and 86 occurrences were reported for those designs. In 1977, the FAA issued guidance material to assist maintenance personnel concerned with tire maintenance (Advisory Circular No. 20-97 and Maintenance Bulletin 20-97). Notwithstanding that effort, tire failures continue to occur in service. The adverse tire service experience indicates that airplanes operating at high weights and speeds are more apt to have safety-related tire failures. Therefore, the FAA is proposing that these airplanes be equipped and operated with tires meeting new TSO-C62c at the earliest possible dates after these new tires can become available.

Because of the higher tire failure rate (number of tire failures compared to the number of airplanes in the fleet) experience with wide-body airplanes, they should be in the first to be equipped with improved tires. Accordingly, the FAA is proposing to require all wide-body airplanes to be equipped with improved tires by December 31, 1982. All standard-body airplanes would have to be equipped with improved airplane tires by December 31, 1983. These dates are selected based on information provided by the tire manufacturers and retreaders, and on estimates of recent utilization of tires of 2,444 turbojet-powered transport category airplanes registered in the U.S. These airplanes represent nine airplane types consisting of three wide-body models (343 airplanes) and six standard-body models (2,101 airplanes). Data was not available for three models, Groupment d' Interest Economique Airbus Industry Type A300, and General Dynamics Models 22 and 30. However, since there are only 14 such airplanes in the current U.S. fleet, their exclusion would not alter these dates. It is estimated that the 343 wide-body airplane fleet requires 10

tire models and 18,000 tires in the system (on airplanes, at station inventory, and in the recap cycle) to operate. The 2,101 standard-body airplane fleet requires 32 tire models and 54,000 tires in the system to operate. This 2,444 airplane fleet uses approximately 23,000 casings and 93,000 retreads per year. The proposed dates represent the shortest time (based on information available to the FAA) necessary for industry, considering current industry capability, to redesign, test, obtain approval, prepare for production, produce tires, and to equip the fleet. The following is a brief description of these steps and the estimated time required to complete them for one tire:

1. Redesign.—This step requires testing (2 weeks) the existing tire against the new TSO standards to determine whether the tire meets the new standards (this step may require testing on a dynamometer) and redesigning, if necessary, the tire to meet the new standards (about 4 weeks.). This includes analysis and selection of a new combination of tire compound, tread depth, number of plies, and materials, and the development of the design data and building the prototype tires.

2. Test.—This step requires testing the newly developed tire to the new TSO standards and requires 2 weeks to complete. This step requires testing on a dynamometer.

3. Obtain approval.—This step requires the submittal of data to the FAA for approval to produce the newly developed tire. The time required to review and approve the data, and to process the approval is 4 weeks.

4. Prepare for production.—This step makes ready the resources to produce tires. The time required to acquire the materials, schedule the materials, men, and machines is 4 weeks.

5. Produce tires.—At this stage of the process the manufacturer can achieve a tire production rate above the tire utilization rate.

6. Equip the airplanes.—This is the most time-consuming of all the steps. It involves the delivery of tires from manufacturer to carrier, installation of the tire, time to use the first tread, the delivery of casings to the retreader, time for the retreader to develop the retread process, the delivery of retreads to the test facility, testing on a dynamometer, and time to obtain approval of the retread process from the FAA. On the average, 30 weeks are required to accomplish this step.

The time frame required to accomplish the above-listed steps is 48 weeks and is a representative time period which may be shorter for some of

the 42 (the 10 tire models for the wide-body airplanes plus the 32 tire models for the standard-body airplanes) tire models and longer for others, but this time frame is not achievable for all 42 models simultaneously. Since existing industry facilities are limited (i.e., two tire manufacturers, three retreaders, and three dynamometers capable of applying the loads necessary to run the overload test require by the new TSO standards), these steps must be undertaken sequentially for the individual tire models. Industry estimates that manufacturers can achieve scheduling efficiencies to bring one redesigned tire to a production-ready stage every 10 weeks. If, based upon information available to the FAA, 17 of 42 tire models must be redesigned, the manufacturers would not be able to start production on the last tire in that sequence until 170 weeks past the issue date of the rule, and retreaders would not be able to start making retreads available until about 200 weeks past the issue date of the rule. Therefore, the last tire would be introduced by the retreaders around December 31, 1983, which is the cutoff date proposed for equipping the standard-body airplanes with improved airplane tires. The FAA expressly solicits comments on each of the proposed dates and justification of any changes commenters which to recommend.

To realize the safety benefits from use of tires meeting the new standards, the proposed rule would also require that the load rating for tires to be retrofitted on existing airplanes be determined in the same manner as that for new type design airplanes under new § 25.733(c)(1) (published concurrently in this issue of the Federal Register.) Comments received in response to the notice of proposed rule making for new § 25.733 (Notice 79-7) indicated a need to identify the inflation pressure necessary to maintain the 7 percent additional load factor required for multiple-mounted tire-wheel assemblies on a single axle as specified in § 25.733(c)(1). Since the load rating of a tire is dependent upon a corresponding inflation pressure, the pressure associated with the 7 percent load factor must be attained to assure that a margin of safety exists for any operational load. The FAA investigation of tire failures has also revealed that unless the deflection characteristics of adjacent tires mounted on a single axle are within a relatively narrow range, a condition of tire overload can occur. For this reason, the FAA is requiring under TSO-C62c the submittal of tire deflection data. This notice proposes to use that

information to assist in the safe matching of tires that are to be installed on a single axle. The proposed 7 percent deflection is based on the manufacturing variances that have been allowed under the previous TSO and that are allowed under the new TSO.

#### Request for Economic Data

The FAA has considered the time required to redesign, test, obtain approval, prepare for production, produce tires, and to equip the fleet with improved airplane tires. The cost impact analysis prepared by the FAA to assess the costs of equipping wide-body and standard-body airplanes with improved airplane tires within the shortest achievable time period considered such factors as the cost to equip the fleet with improved tires, the cost of replacing working inventories with higher-priced new tires, and the loss of the remaining value of old standard tires still in the working inventory after the proposed date to equip the airplanes with improved tires.

Based on the information available to the FAA at this time, the cost of complying with the proposal for wide-body airplanes is estimated, using a fleet size of 343 airplanes with an average annual utilization rate of 1,121 landings per airplane, at \$5,260,000 with an additional annual follow-on cost of \$270,000, the equivalent of \$0.14 per tire per landing. The cost for standard-body airplanes is estimated, using a fleet size of 2,101 airplanes and the actual airplane utilization during 1978 (weighted average of 2,296 landings per airplane) at \$9,400,000 with an additional annual follow-on cost of \$950,000, the equivalent of approximately \$0.08 per tire per landing.

The FAA is aware that much detailed economic impact information is exclusively in the possession of aircraft tire manufacturers, aircraft tire retreaders, aircraft owners, and aircraft operators. Accordingly, comments concerning economic impact of the proposal are strongly encouraged.

In submitting comments, each owner, operator, and manufacturer should specify the proposal's anticipated economic effect on its operations or production. If an organization desires to submit economic data on behalf of groups of operators or manufacturers, a detailed breakdown of the anticipated effect on each member of the group is requested.

#### The Proposed Amendment

Accordingly, the Federal Aviation Administration proposes to amend Part 91 of the Federal Aviation Regulations

(14 CFR Part 91) by adding new § 91.59 to read as follows:

**§ 91.59 Airplane tires.**

(a) After December 31, 1982, no person may operate a wide-body airplane type certificated with high-speed main wheel tires (rated over 160 miles per hour), unless it is equipped with tires meeting TSO-C62c that have a load rating in accordance with § 25.733(c)(1) of this chapter in effect on: December 31, 1979.

(b) After December 31, 1983, no person may operate a standard-body airplane type certificated with high-speed main wheel tires (rated over 160 miles per hour), unless it is equipped with tires meeting TSO-C62c that have a load rating in accordance with § 25.733(c)(1) of this chapter in effect on: December 31, 1979.

(c) At all operating loads up to the load rating of the tire, each tire required under paragraph (a) or (b) of this section must be operated—

(1) At the tire inflation pressure necessary to maintain at least 1.07 times the operational load; and

(2) At a deflection which is within 7 percent of the deflection of any other tire-wheel combination mounted on the same axle.

(d) For the purpose of this section, wide-body airplanes include, but are not necessarily limited to, the Boeing Model 747, Lockheed Model L-1011, and McDonnell Douglas Model DC-10. Standard-body airplanes, include but are not necessarily limited to, the Boeing Models 727 and 737, General Dynamics Model 22, and McDonnell Douglas Models DC-8 and DC-9.

(Secs. 313(a), 601 and 603, Federal Aviation Act of 1958, as amended (49 U.S.C. 1354(a), 1421, and 1423; sec. 6(c), Department of Transportation Act (49 U.S.C. 1655(c); 14 CFR 11.45).)

**Note.**—The FAA has determined that this document involves a proposed regulation which is not considered to be significant under the procedures and criteria prescribed by Executive Order 12044 and as implemented by the Department of Transportation Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). A copy of the draft evaluation prepared for this action is contained in the regulatory docket. A copy of it may be obtained by contacting the person identified under the caption "For Further Information Contact."

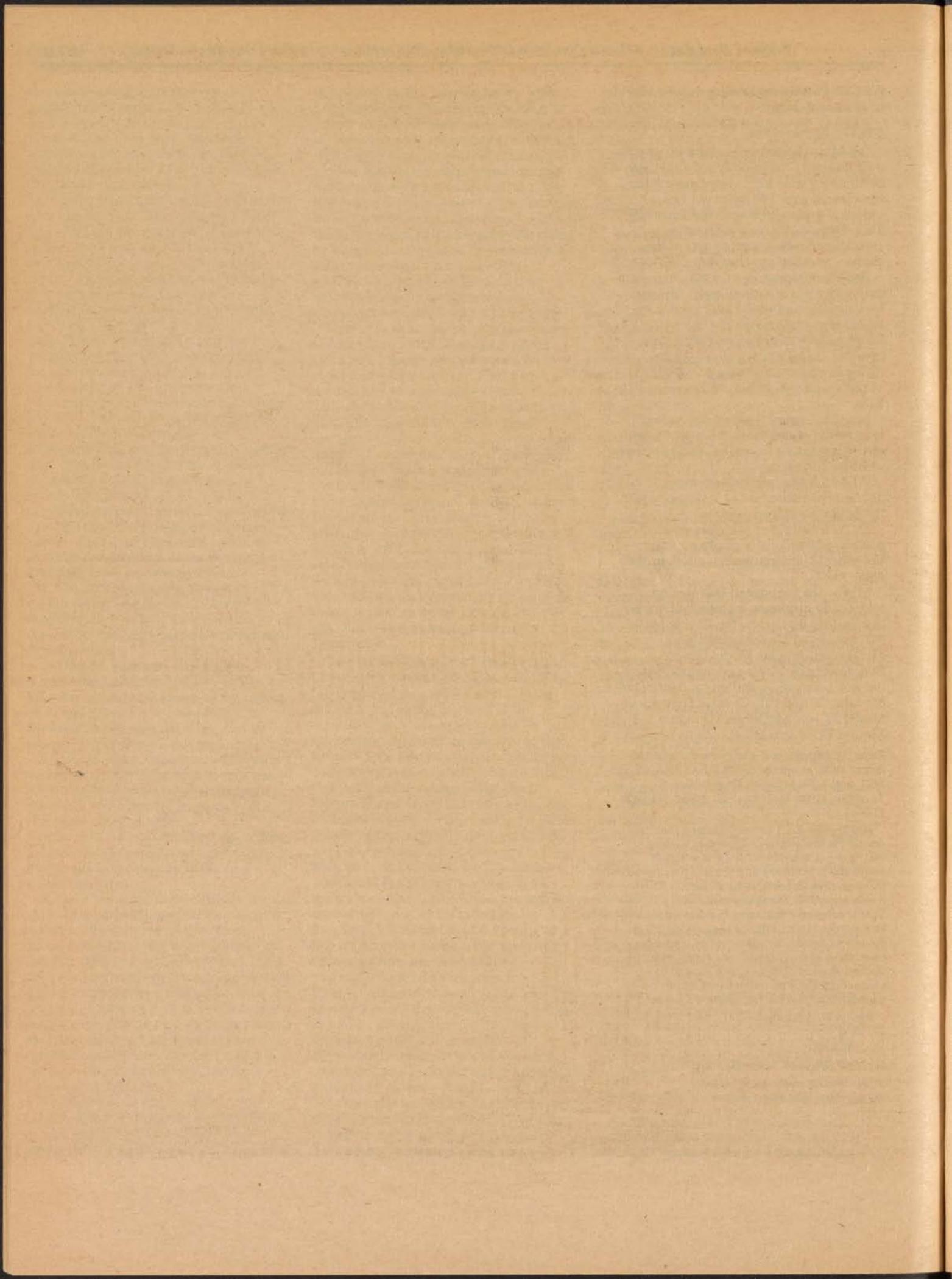
Issued in Washington, D.C., on November 21, 1979.

**M. C. Beard,**

*Director Office of Airworthiness.*

[FR Doc. 79-36045 Filed 11-28-79; 8:45 am]

**BILLING CODE 4910-13-M**



# **Federal Register**

---

Thursday  
November 29, 1979

---

## **Part VII**

### **Securities and Exchange Commission**

---

**Shareholder Communications,  
Shareholder Participation in the  
Corporate Electoral Process and  
Corporate Governance Generally**

**SECURITIES AND EXCHANGE  
COMMISSION**
**17 CFR Part 240**

[Release No. 34-16356]

**Shareholder Communications,  
Shareholder Participation in the  
Corporate Electoral Process and  
Corporate Governance Generally**
**AGENCY:** Securities and Exchange  
Commission.

**ACTION:** Final rules.

**SUMMARY:** The Commission announces the adoption of rule and schedule amendments which are intended to provide greater opportunities for shareholders to exercise their right of suffrage and to obtain information and advice with respect to matters on which they vote. The amendments require that shareholders be provided with a form of proxy which (a) indicates whether the proxy is solicited on behalf of the issuer's board of directors, (b) permits shareholders to withhold authority to vote for each nominee for election as a director, and (c) provides a means by which shareholders are afforded an opportunity to abstain from matters referred to in the proxy card as to which shareholders have an opportunity to vote, other than elections to office. The Commission also is adopting a rule requiring that shareholders be provided, under certain circumstances, with information concerning the votes cast for and withheld from incumbent directors. Other rule amendments exempt from the informational and filing requirements of the proxy rules the furnishing of proxy voting advice by financial advisors, under certain limited circumstances. Such activities, however, as well as non-issuer solicitations made to ten or fewer persons, are subject to the proxy rule prohibition against false or misleading statements. Additionally, the Commission is adopting a rule which requires disclosure of the date by which shareholder proposals must be received in order to be included in the issuer's proxy statement.

**EFFECTIVE DATE:** The amendments to Regulation 14A and Schedule 14A are effective for all issuers for filings made on or after December 31, 1979.

**FOR FURTHER INFORMATION CONTACT:** Amy L. Goodman, (202) 272-2597, G. Michael Stakias, (202) 272-2589 or Gregory H. Mathews, (202) 272-2644, Division of Corporation Finance, Securities and Exchange Commission, Washington, D.C. 20549.

**SUPPLEMENTARY INFORMATION:** The Securities and Exchange Commission today adopted amendments to Regulation 14A (17 CFR 240.14a-1 et seq.) and Schedule 14A (17 CFR 240.14a-101) under the Securities Exchange Act of 1934 [15 U.S.C. 78a, et seq., as amended by Pub. L. No. 94-29 (June 4, 1975)]. The amendments are part of the Commission's continuing consideration of issues which have been raised in its reexamination of rules relating to shareholder communications, shareholder participation in the corporate electoral process and corporate governance generally.

**I. Background**

In April 1977, the Commission authorized its staff to institute a broad re-examination of its rules relating to shareholder communications, shareholder participation in the corporate electoral process and corporate governance generally.<sup>1</sup> Public hearings were held in the fall of 1977 on a number of issues, including the adequacy of existing avenues of communications between shareholders and corporations and the role of shareholders in the corporate electoral process.

In light of the complexity and variety of issues under consideration, the Commission determined to proceed in stages. In July 1978, the Commission published for comment rulemaking proposals intended to provide shareholders with information to facilitate their assessment of the structure, composition and functioning of issuers' boards of directors.<sup>2</sup> The adoption of these proposals for the 1979 proxy season was announced in Securities Exchange Act Release No. 15384 (December 6, 1978), 43 FR 58522 (December 14, 1978). At that time, the Commission indicated that additional stages of its response to the issues raised in the proceeding would consist of possible rulemaking proposals or recommendations for legislation and the publication of a staff report on other important questions under consideration.

On August 13, 1979, the Commission proposed certain amendments to its

<sup>1</sup> Securities Exchange Act Release No. 13901 (August 29, 1977), 42 FR 44860 (September 7, 1977), contains a statement of the issues on which testimony and comments were requested. The identification of these issues was based, in part, upon the public comments received in response to the Commission's prior release, Securities Exchange Act Release No. 12482 (April 28, 1977), 42 FR 23901 (May 11, 1977).

<sup>2</sup> See Securities Exchange Act Release No. 14970 (July 18, 1978), 43 FR 31945 (July 24, 1978).

proxy rules.<sup>3</sup> The proposals were designed, among other things, to provide an opportunity for more meaningful shareholder participation in the corporate electoral and decision-making process. More than 600 individuals and organizations submitted letters in response to the Commission's request for comments. While most of the commentators were sympathetic to the Commission's goals, they raised concerns about the costs and difficulties of implementing the proposed amendments at this time, particularly those amendments which would permit shareholders to vote against individual directors and would eliminate authority of the proxy holder to vote the shares of any shareholder who failed to provide instructions.

Many commentators asserted that since few, if any, shareholders dissent from proposed corporate transactions or otherwise express their dissatisfaction to the company, no change is necessary or desirable—the system seems to be working. The Commission believes, however, that infrequent dissent or the absence of pervasive complaints by shareholders does not necessarily mean that the system of shareholder participation is functioning adequately or could not be improved without imposing excessive costs. In fact, some commentators noted that reduced levels of participation may be attributable to lack of meaningful ways to have one's voice heard.

The Commission's decision in 1977 to undertake a broad examination of its proxy rules relating to shareholder participation included a commitment to consider amending the existing proxy rules in ways that could increase the opportunities for shareholders to participate meaningfully in corporate governance, particularly where the burdens of change would be minimal. The Commission continues to believe that corporate accountability can be significantly enhanced if shareholders are actively involved in selecting directors, whether through the functioning of nominating committees or otherwise. Thus, the Commission believes that the rules it is adopting today are a step toward increasing the necessary shareholder participation, while at the same time not entailing significant costs.

The rules adopted today take into account the principal objections submitted by the commentators. The revisions in the proposals are discussed below.

<sup>3</sup> See Securities Exchange Act Release No. 16104 (August 13, 1979), 44 FR 46938 (August 20, 1979).

## II. Voting on Individual Nominees for Director—Rule 14a-4(b)(2)

Rule 14a-4(b)(2), as proposed, would have required that a form of proxy relating to the election of directors list the nominees individually. It also would have permitted shareholders to vote for or against each nominee, individually, by marking a box or by other similar means. A mechanism for shareholders to vote in favor of the entire slate of nominees by marking a single box, rather than by marking boxes for each of the nominees, also would have been permitted provided that there was a similar means for the security holder to vote against the entire slate.

In the release announcing publication of the proposal, the Commission expressed the view that "corporations should explore further the possibility that shareholder participation, quantitatively and qualitatively, might increase if the opportunities for such participation were made more meaningful." The Commission also expressed its belief that presently the act of shareholder voting is virtually pro forma and that "shareholders ought to have an opportunity for more meaningful participation in the director selection process." This desire to provide shareholders with a means to vote with respect to individual nominees was tempered, however, by recognition of the fact that the continued use by issuers of data processing techniques to tabulate votes might become difficult and substantially more expensive under the proposed amendments. Accordingly, the Commission specifically requested suggestions for accomplishing the proposed changes in the proxy card in a manner which would permit the continued use of existing tabulating techniques.

Almost all of the comment letters contained an assessment of proposed rule 14a-4(b)(2), and, in fact, a large number dealt only with this issue and that of discretionary voting, pursuant to proposed rule 14a-4(b)(3). Many commentators believed that rulemaking in the area of corporate accountability should focus on strengthening the independent role of the board, as well as the structure of the board and its committee system, rather than unduly politicizing the corporate electoral process through a provision for individual voting. Others commented that when shareholders vote for directors, they are voting for or against the board as a cohesive managing body and have little interest in individual nominees. Conversely, some commentators expressed the opinion that such a requirement was long

overdue and that, in light of the recent amendments to the proxy rules regarding disclosure of certain personal and economic relationships between directors and the issuer or management, it seemed particularly important to allow shareholders the opportunity to express individual preferences. Similarly, there was some expression of support for the principle of individual voting, but disagreement with the proposal in light of the practical problems and costs which would result from implementation.

Virtually all of the commentators addressed themselves to questions concerning the feasibility of structuring a proxy card to allow individual voting and the costs necessary for implementation. The corporate commentators generally expressed opposition to the proposal based on cost estimates included in their comments. Most of these commentators, including corporate transfer agents, asserted that this proposal would make the current vote tabulation system obsolete, thereby requiring new data handling systems in order to tabulate the expanded number of proposals. It was further argued that the proposal would not only reduce the accuracy and efficiency of the tabulation process, but also would overly complicate the process of voting on a proxy card, thereby fostering shareholder disinterest and confusion.

A number of legal commentators questioned the treatment of an "against" vote under state law, most arguing that it normally would have no effect in an election. They also expressed the concern that shareholders might be misled into thinking that their against votes should have an effect when, as a matter of substantive law, such is not the case since such votes are treated simply as abstentions.

The Commission recognized that proposed rule 14a-4(b)(2) might create practical tabulating difficulties as well as increase the basic costs of the proxy solicitation process. As noted above, in an attempt to be sensitive to these problems, the Commission specifically requested information on the estimated additional costs of the rules, as well as information on the practical difficulties which could be encountered. A number of commentators suggested less costly means of permitting shareholders to vote for nominees individually. Some proposed providing a blank space for shareholders to write in the names of those from whom they would like their votes withheld, while others suggested the same result could be accomplished by allowing shareholders to strike the names of those listed nominees from

whom they wished to withhold their votes.

The Commission has carefully considered the comments and recognizes that, given the present state of proxy tabulation procedures, the rule, as proposed, could be burdensome to some companies and that there may be other ways to achieve similar benefits without the economic and practical difficulties presented by the proposed rule. Therefore, as adopted, rule 14a-4(b)(2) has been revised to delete the specific requirement of a for and against vote for individual nominees. Instead, the rule provides that the form of proxy shall clearly provide one of several designated methods for security holders to withhold authority to vote for each nominee. It is contemplated that the rule will allow issuers to provide shareholders the opportunity to express themselves in the most economic and practical manner. The Commission intends to monitor the workings of the rule and will consider appropriate revisions as deemed necessary to facilitate shareholder participation in the corporate electoral process.

Rule 14a-4(b)(2), as revised, requires that the names of the persons nominated to the board shall be set forth on the form of proxy. This requirement will provide shareholders with the readily accessible information upon which to withhold authority from individual nominees if such is their desire. It is contemplated that a horizontal listing of the nominees could be set forth in the space available on the form of proxy.<sup>4</sup>

The form of proxy also may provide for a security holder to grant authority to vote for nominees set forth as a group, provided that there is a similar means to withhold such authority. With respect to a security holder's ability to vote for or against an individual nominee, the Commission acknowledges that an "against" vote may have questionable legal effect and therefore could be confusing and misleading to shareholders. Accordingly, the term "withhold authority" has been substituted in the rule. The Commission notes, however, that certain jurisdictions may give legal effect to votes cast against a nominee. Accordingly, an instruction to rule 14a-4(b)(2) indicates that in such situations issuers should provide a means for or security holders to vote against nominees in lieu of, or in addition to,

<sup>4</sup> Several companies currently provide their shareholders with such a listing without difficulties in space requirements on their form of proxy.

providing them with a means to withhold authority to vote.<sup>5</sup>

The form of proxy would be required to provide one of the following means for security holders to withhold authority for each nominee:<sup>6</sup>

(i) a box opposite the name of each nominee which may be marked to indicate that authority to vote for such nominee is withheld;<sup>7</sup> or

(ii) an instruction in bold-face type which indicates that the security holder may withhold authority to vote for any nominee by lining through or otherwise striking out the name of any nominee; or

(iii) designated blank spaces in which the shareholder may enter the names of nominees with respect to whom the shareholder chooses to withhold authority to vote; or

(iv) any other similar means, provided that clear instructions are furnished indicating how the shareholder may withhold authority to vote for any nominee.<sup>8</sup>

As proposed, rule 14a-4(b)(2) provided that, if security holders have cumulative voting rights, the form of proxy may provide a means for the security holder to grant discretionary authority to have one's shares cumulated and voted for any nominees other than nominees the security holder has voted against. This part of rule 14a-4(b)(2) has been eliminated. As the commentators correctly pointed out, this aspect of the rule was permissive in nature, and issuers presently can provide for such authority on the form of proxy if they desire to do so.

### III. Disclosure of Votes Cast For and Against Individual Directors—Proposed Item 6(g)

Proposed item 6(g) of Schedule 14A required disclosure, with respect to those classes of voting stock which participated in the election of directors at the most recent annual meeting, of the percentage of shares present at the meeting and voting in the election of directors. It also would have required disclosure, in tabular format, of the percentage of those shares voting in the election of each nominee which was voted for and against each nominee. An

<sup>5</sup> Votes cast against a nominee would have legal effect in jurisdictions where such votes are counted in determining whether the nominee has received the requisite number of the votes. See, *Strong v. Fromm Laboratories, Inc.*, 273 Wis. 139, 77 N.W. 2d 389 (1956).

<sup>6</sup> Sample proxies which illustrate the following methods are attached as exhibits.

<sup>7</sup> Certain commentators have indicated that they currently employ optical character readers which may be capable of handling this type of voting system.

<sup>8</sup> For example, certain organizations provide a punch card method for voting in elections for office.

instruction to the proposed item provided that disclosure would be required only if 5% or more of the shares voting were voted against any incumbent director. If, however, one or more incumbent directors received a negative vote of that size, disclosure would be required as to all directors.

A majority of commentators opposed requiring disclosure of this type. Many specifically opposed the imposition of any negative vote threshold for disclosure of votes cast for and against individual directors. Others argued that negative votes bear no relationship to a director's credentials and would provide no guidance as to what qualities are desired by shareholders. A significant number of comments indicated that the basic intent of the proposals—the disclosure of voting results to shareholders—was sound. However, some of these commentators did suggest that the threshold for disclosure be raised significantly.

A considerable number of commentators also argued that disclosing voting results could tend to deter some qualified persons from serving on boards of directors. Some expressed concern that negative votes would be cast not on the basis of a nominee's qualifications as a director, but on his or her ethnic, racial or sexual classification, or perceived political affiliation.

The Commission is aware of the possibility that some shareholders may be motivated by bias or prejudice in electing to withhold authority for certain nominees. It believes, however, that incidences of such voting would be an exception to the rule.<sup>9</sup> In addition, the Commission is not persuaded that disclosure of the voting results of individual nominees would discourage qualified persons from serving on boards of directors. The Commission has urged companies to closely examine the composition of their boards and does not want to discourage initiatives in this regard. At the same time, however, the Commission is concerned that shareholders have an important role to play in this process. In this regard, it is important that shareholders understand the nominating process and have access to the views of other shareholders concerning those on the board. Moreover, the Commission believes that disclosure of the voting results would be useful to shareholders and facilitate their participation in the director electoral process.

<sup>9</sup> Issuers are encouraged to provide information to the Commission's staff concerning any such incidents.

Accordingly, item 6(g), as adopted, requires disclosure of the number of shares present at the meeting and voting or withholding authority to vote in the election of directors, as well as disclosure in tabular format of the percentage of total shares cast for and withheld from the vote for or, where applicable, voted against, each nominee.<sup>10</sup> In response to comments concerning "against" votes, item 6(g) reflects the change to "votes withheld" from individual nominees, except where state law gives legal effect to an against vote. The 5% threshold is retained, however, because the Commission believes it represents a significant number of votes which should be disclosed. In instances where an issuer elects less than the entire board of directors annually, disclosure would be required as to all directors where any director received a 5% or greater withhold or negative vote when most recently elected.

While the Commission has determined to adopt item 6(g), it is persuaded that no information need be given in the proxy statement for the next annual meeting if the issuer has previously furnished to its security holders a post-meeting report which includes the information required by instruction 4 to item 6(g). A small, but nonetheless significant, number of issuers have adopted the practice of mailing to shareholders brief descriptions of their annual meetings and the results of the voting with respect to the various matters submitted for shareholder vote. As noted in the proposing release, the Commission favors such reports.

In view of the fact that this item calls for disclosure of information to be generated by newly adopted rule 14a-4(b)(2), compliance with the item will not be required for the initial proxy season which follows the effective date of rule 14a-4(b)(2).

### IV. Unsolicited Voting Advice Furnished by Financial Advisors—Rule 14a-2(b)(2)

Proposed rule 14a-2(b)(2) provided that rules 14a-3 through 14a-8 and 14a-10 through 14a-12 would not apply to the furnishing of proxy voting advice by any person (the "advisor") to any other person with whom the advisor had a business relationship. The proposed rule was designed to remove an impediment to the flow of information to shareholders from professional financial advisors who may be especially familiar with the affairs of issuers.

<sup>10</sup> It is contemplated that such information would be included in the table providing nominee information about each prospective director.

The majority of those commenting upon this proposal supported it. Generally, this group of commentators indicated that financial advisors could provide valuable voting information, the availability of which would improve the participation of shareholders in the voting process. Those opposing the proposal were fearful that the Commission might be acting precipitously without full knowledge of the effects of the proposed exemption.

Most of the negative comments focused on possible definitional or interpretative problems. The proposed rule defined an "advisor" as one who "renders financial advice in the ordinary course of his business." The release announcing the proposal indicated that the term "advisor" would normally include financial analysts, investment advisors and broker-dealers. A few commentators believed that this term should be defined more broadly to cover any person who renders financial, business or legal advice in the ordinary course of his or her business.<sup>11</sup> Others thought the definition should be narrowed to include only registered investment advisors and registered broker-dealers. The Commission is retaining the definition of advisor as proposed. The definition focuses on persons with financial expertise and who are likely to be particularly familiar with information about corporate affairs which may be pertinent to voting decisions.

A proposed further condition to the availability of the exemption was that the advisor "disclose any significant relationship with the issuer and any material interest in any matter on which advice is given." Several commentators stated that the existence of other relationships also could have an effect upon the value of the advice. Therefore, the final rule requires the advisor to disclose to the recipient of the advice any significant relationship with the issuer or any of its affiliates or with a shareholder proponent of the matter on which advice is given, in addition to disclosing any material interest of the advisor in the matter to which the advice relates.

The release specifically requested comment on whether the proposed exemption should be available in election contest situations. Most commentators who addressed this issue believed that voting advice could be particularly helpful in the context of an

election contest. However, to clarify that the advisor cannot furnish advice on behalf of any interested party in an election contest, the rule states that the exemption will not be available for proxy voting advice furnished on behalf of any person soliciting proxies or on behalf of a participant in an election contest subject to the provisions of rule 14a-11.

#### V. Voting of Unmarked Proxies—Rule 14a-4(b)(3)

Rule 14a-4(b)(3), as proposed, would have prohibited a form of proxy from conferring discretionary authority to vote with respect to any matter as to which the security holder is afforded an opportunity to specify a choice and no specification has been made. The proposed rule, however, permitted a form of proxy to provide a means, by ballot, for security holders to grant to the proxy holder discretionary authority to vote for any matter, other than elections to office, as to which the security holder has been afforded an opportunity to specify a choice.

In the release announcing the proposed amendments, the Commission expressed concern that shareholders may choose to abstain on matters by not marking certain of the boxes provided, yet under the present proxy rules such unmarked proxies will be voted in favor of management's positions. The Commission observed that "such a result may not be consistent with the intent of shareholders and could dilute the meaning of the vote conveyed to the issuer's board of directors."

The vast majority of the over 400 commentators that addressed proposed rule 14a-4(b)(3) opposed it. Many of these commentators believed that shareholders currently have adequate opportunities to abstain from voting. Several corporations commented that any shareholder who wishes to abstain on all matters can do so simply by not returning a proxy to the issuer. In addition, it was reported that proxies with "abstain" written beside an item or with a line drawn through the item typically are treated as an abstention when tabulating the votes cast for or against that item. On the other hand, a few commentators asserted that a security holder who wishes to participate in the electoral process should be expected to vote on every matter put to a vote of security holders.

Most commentators who opposed the proposed rule asserted that a significant number of proxies are returned each year signed but unmarked and believed that there is little reason to doubt that shareholders intend an unmarked proxy to be voted for management's

positions.<sup>12</sup> These commentators, noting that shareholders are advised as to how unmarked proxies will be voted, stated that the acts of signing, dating and returning a proxy signified that the executing shareholder desired management to have full voting authority over the shares represented by the proxy. Others had different interpretations of the meaning of a signed, but unmarked proxy. One shareholder contended that an unmarked proxy evidenced a desire to have the security holder's vote counted only for purposes of achieving a quorum at the meeting of security holders. Shareholder intentions are unclear, according to another commentator, because some companies "attempt to make return of a signed and dated proxy card as automatic and unthinking a process as possible."

Commentators foresaw numerous problems if the rule were adopted as proposed. Chief among their concerns was the fear that shareholders would continue to return unmarked proxies intending to grant voting authority to the proxy. In the opinion of many commentators, extensive re-education efforts would be needed to alter this traditional mode of shareholder response. Others argued that if unmarked proxies could not be voted on the matters to be considered at the meeting, it could become extremely difficult to attain the specified level of votes required for approval of certain measures deemed critical to the orderly functioning of issuers. A few corporations also were concerned that disregarding unmarked proxies would tend to increase artificially the percentage of votes cast in favor of shareholder proposals, which might result in adoption of special interest proposals not supported by security holders on the whole.

The Commission is sensitive to the possibility that adoption of the rule, as proposed, could impede attainment of a specified percentage of votes needed to adopt measures important to issuers' operations. The Commission is concerned, however, that there be adequate opportunities for security holders to use the proxy form to clearly convey their voting instructions to the issuer. Therefore, rule 14a-4(b)(1) has been revised to require that the form of proxy provide a means for the person solicited to specify, by boxes, a choice to abstain with respect to each matter to be acted upon, as well as to approve or disapprove each matter, other than

<sup>12</sup> Based upon the comment letters, it appears that between 20-50% of the proxies returned to issuers are signed but otherwise unmarked.

<sup>11</sup> It should be noted that, under ordinary circumstances, the requirements of the present proxy rules will not apply to the relationship between a client and his attorney or accountant. The proxy rules regulate the conduct only of those who participate in the solicitation of proxies.

elections to office. To help minimize the number of abstentions when significant proposals recommended by the board of directors are voted upon and to clarify the meaning of signed but unmarked proxies, the Commission requests issuers to make greater efforts to encourage security holders to vote on the matters to be considered at the meeting.<sup>13</sup>

Rule 14a-4(b)(1), as amended, will continue to permit a proxy to confer discretionary authority with respect to matters as to which a choice is not specified, provided that the form of proxy states in bold-face type how it will be voted as to each matter. Rule 14a-4(b)(2), as amended, provides that such authority also exists with respect to the election of directors.

#### VI. Identification of Persons on Whose Behalf Proxies are Solicited—Rule 14a-4(a)

Proposed rule 14a-4(a) would require that the proxy card, if provided by the issuer, indicate in bold-face type whether or not the proxy is solicited on behalf of the issuer's board of directors. If the proxy card is provided other than by a majority of the board of directors, the card would identify in bold-face type the person on whose behalf the proxy is solicited.

Commentators who opposed the proposal indicated that, in their view, the distinction between management and the board of directors was not significant. Some asserted that a distinction between management and the board is contrary to state law, because, under most state laws, the business and affairs of the corporation are either managed by the board of directors or under the direction of the board of directors. Other commentators were concerned that changing "management" to "board of directors" might produce legal consequences and implications that have not been sufficiently considered. In addition, a number of commentators were concerned that dropping the label of "management's proxy" would create confusion because it was well understood by shareholders.

A number of commentators, however, supported this proposal. These commentators asserted that the proposal would strengthen corporate accountability because the board of directors and not management has the

responsibility to nominate directors, and the board of directors is legally responsible for the contents of the proxy statement.

The Commission notes that commentators did not specifically identify any undesirable legal consequences or complications from adopting the rule as proposed. Further, the Commission believes that this change will reduce the possibility of confusion by clarifying the persons on whose behalf the proxy is solicited. The Commission agrees with those commentators who suggested that this proposal will strengthen corporate accountability. Accordingly, the final rule requires identification of the persons on whose behalf the proxy is solicited, whether it is the board of directors or persons opposing the issuer's solicitation. Certain commentators were concerned with references in other parts of the proxy rules to "management's proxy materials." The Commission concurrently is adopting technical amendments to its rules to delete or modify such references as is appropriate.<sup>14</sup>

#### VII. Limiting the Exemption From the Proxy Rules for Certain Nonissuer Solicitations—Rule 14a-2(b)(4)

Proposed rule 14a-2(b)(1) would subject non-issuer solicitations made to ten or fewer persons to rule 14a-9. This proposal was the subject of little commentary. The Commission believes that the application of rule 14a-9 to all solicitations is a necessary means of assuring that communications which may influence shareholder voting decisions are not materially false or misleading. Accordingly, the rule as adopted extends the prohibitions of rule 14a-9 to non-issuer solicitations made to ten or fewer persons.

#### VIII. Disclosure of the Date for Receipt of Shareholder Proposals—Rule 14a-5(f)

Proposed rule 14a-5(f) would require an issuer's proxy statement to disclose, under an appropriate caption, the date by which shareholder proposals must be received by the issuer for inclusion in the proxy materials relating to the next annual meeting. This date would be calculated according to the provisions of rule 14a-8(a)(3)(i). The proposed rule further provides that, if the date of the next annual meeting is subsequently advanced by more than 30 calendar days or delayed by more than 90 calendar days from the date of the annual meeting to which the proxy

statement relates, the issuer shall promptly inform shareholders of the change by any means reasonably calculated to so inform them.

Some commentators were concerned that the rule would facilitate the flow of frivolous and spurious shareholder proposals which have little shareholder support. In addition, a number of commentators were concerned with the provision in the rule requiring notice to shareholders if the next annual meeting is advanced by more than 30 calendar days or delayed by more than 90 calendar days. These commentators suggested that a separate mailing would be costly and that routine or regular reports to shareholders would provide a reasonable alternative provided that these alternative mailings would reach shareholders in a reasonable time for a "shareholder proposal" to be submitted under the revised schedule.

Other commentators were concerned that (1) notice far in advance of the deadline may be quickly forgotten, (2) disclosing the change in the meeting date would elevate the cut-off date for shareholder submissions to an unrealistic level of importance, (3) issuers' time to analyze and respond to shareholder proposals would be diminished; therefore, the deadline should be expanded to 120 days to allow adequate time for issuer analysis and response, and (4) shareholders seriously interested in a proposal are sufficiently familiar with the proxy rules to learn the requirements of rule 14a-8 and submit such proposals on a timely basis without disclosure in the proxy statement.

The staff's experience in rendering informal advisory assistance with respect to the operation of the shareholder proposal rule indicates that many shareholder proponents fail to meet the burden of submitting proposals on a timely basis. By requiring disclosure of the deadline for submission of proposals, the final rule may increase the certainty of meeting the filing requirements under rule 14a-8 and minimize inadvertent timing errors in the submission of proposals. In the Commission's view, this rule will help eliminate confusion and misunderstanding, thereby enhancing the opportunity for shareholders to participate in the corporate governance process.

The Commission is persuaded that the concerns expressed with regard to costly separate mailings are valid. Accordingly, the Commission has changed the requirement that "the issuer shall promptly inform security holders" to "the issuer shall, in a timely manner, inform security holders." Therefore, routine or regular mailings may be used

<sup>13</sup> Based on the staff's examination of a sample of proxy statements filed with the Commission during 1979, it appears that, at present, most issuers request security holders to "sign, date and return" proxies, but do not ask them to "vote" or to otherwise indicate their choices with respect to the matters to be voted upon.

<sup>14</sup> See Securities Exchange Act Release No. 16357 (November 21, 1979).

to inform shareholders of changes in the meeting date and the new deadline for submission of "shareholder proposals." However, shareholders must have a reasonable time after receipt of these alternative mailings to submit a "shareholder proposal."

Technical amendments have been made in rule 14a-8(a)(3)(i) in order to conform it to the revisions made by these amendments.

#### IX. Disclosure of Cumulative Voting Rights—Item 5(c)

Proposed item 5(c) of schedule 14A would add to the present provisions a requirement that cumulative voting rights be briefly described and also require disclosure of the effect on the election of directors of casting votes against nominees. Further, if discretionary authority to cumulate votes is solicited pursuant to the provisions of proposed rule 14-4(b)(2), the proxy statement would be required to indicate whether votes will be cast for any nominee or nominees in preference to others and, if so, in what manner.

The Commission believes that a brief description of cumulative voting rights will provide useful information to shareholders and will facilitate and promote informed voting decisions in the corporate electoral process. Accordingly, the requirement that cumulative voting rights be described has been retained.

Many commentators were opposed to disclosing the effect on the election of directors of casting votes against nominees. These commentators asserted that the proposal was confusing because state law either does not extend a right to vote against directors or does not recognize a vote cast against directors. Other commentators were concerned that the proposal would raise unwarranted expectations as to the significance of votes cast against directors. A small number of commentators asserted that this requirement would lend itself to self-serving, boiler-plate statements. The Commission agrees with these arguments and, accordingly, has deleted the requirement that the effect on the election of directors of casting votes against nominees be disclosed.

Many commentators opposed the requirement that the proxy statement indicate whether votes will be cast for any nominees in preference to others and, if so, the manner of casting these votes, if discretionary authority to cumulate votes was solicited. These commentators were concerned that requiring an advance determination of exactly how shares will be cumulatively

voted would unduly restrict management's effectiveness and its ability to act at the meeting. Further, they stated this would not be in keeping with the express authority granted to management by shareholders. Some commentators also expressed concern that predetermining how shares will be cumulated would be needlessly divisive and of questionable relevance. Others believed that requiring a prior commitment to vote discretionary proxies in a particular order of preference might make it impossible to cumulate votes in the most efficient manner. Several commentators suggested that management's discretionary authority to cumulate votes for a nominee or nominees in preference to others could be a violation of state law.

The Commission recognizes that this requirement may present numerous problems. Accordingly, the revision of this proposed rule reflects elimination of the requirement that, where discretionary authority to cumulate votes is solicited, any preference among nominees be disclosed. The revised rule simply requires that, if discretionary authority to cumulate votes is solicited, that fact should be indicated. The Commission notes that, if an issuer should desire to disclose preferences among nominees, such disclosure may be voluntarily undertaken.

#### X. Certain Findings

As required by section 23(a)(2) of the Exchange Act, the Commission has specifically considered the impact which the amendments adopted herein would have on competition and has concluded that they impose no significant burden on competition. In any event, the Commission has determined that any possible burden will be outweighed by, and is necessary and appropriate to achieve, the benefits of these amendments to investors and registrants.

#### Text of Amendments

#### PART 240—GENERAL RULES AND REGULATIONS, SECURITIES EXCHANGE ACT OF 1934

17 CFR Part 240 is amended as follows:

1. § 240.14a-2 is revised to read as follows:

§ 240.14a-2 Solicitations to which § 240.14a-3 to § 240.14a-12 apply.

Sections 240.14a-3 to 240.14a-12 apply to every solicitation of a proxy with respect to securities registered pursuant to section 12 of the Act, whether or not

trading in such securities has been suspended, except that:

(a) Sections 240.14a-3 to 240.14a-12 do not apply to the following:

(1) Any solicitation by a person in respect to securities carried in his name or in the name of his nominee (otherwise than as voting trustee) or held in his custody, if such person—

(i) Receives no commission or remuneration for such solicitation, directly or indirectly, other than reimbursement of reasonable expenses,

(ii) Furnishes promptly to the person solicited a copy of all soliciting material with respect to the same subject matter or meeting received from all persons who shall furnish copies thereof for such purpose and who shall, if requested, defray the reasonable expenses to be incurred in forwarding such material, and

(iii) In addition, does no more than impartially instruct the person solicited to forward a proxy to the person, if any, to whom the person solicited desires to give a proxy, or impartially request from the person solicited instructions as to the authority to be conferred by the proxy and state that a proxy will be given if no instructions are received by a certain date.

(2) Any solicitation by a person in respect of securities of which he is the beneficial owner;

(3) Any solicitation involved in the offer and sale of securities registered under the Securities Act of 1933: *Provided*, That this paragraph shall not apply to securities to be issued in any transaction of the character specified in paragraph (a) of Rule 145 under that Act;

(4) Any solicitation with respect to a plan of reorganization under Chapter X of the Bankruptcy Act, as amended, if made after the entry of an order approving such plan pursuant to section 174 of said Act and after, or concurrently with, the transmittal of information concerning such plan as required by section 175 of said Act;

(5) Any solicitation which is subject to Rule 62 under the Public Utility Holding Company Act of 1935; and

(6) Any solicitation through the medium of a newspaper advertisement which informs security holders of a source from which they may obtain copies of a proxy statement, form of proxy and any other soliciting material and does no more than (i) name the issuer, (ii) state the reason for the advertisement, and (iii) identify the proposal or proposals to be acted upon by security holders.

(b) Sections 240.14a-3 to 240.14a-8 and 240.14a-10 to 240.14a-12 do not apply to the following:

(1) Any solicitation made otherwise than on behalf of the issuer where the total number of persons solicited is not more than ten; and

(2) The furnishing of proxy voting advice by any person (the "advisor") to any other person with whom the advisor has a business relationship, if:

(i) The advisor renders financial advice in the ordinary course of his business;

(ii) The advisor discloses to the recipient of the advice any significant relationship with the issuer or any of its affiliates, or a shareholder proponent of the matter on which advice is given, as well as any material interest of the advisor in such matter;

(iii) The advisor receives no special commission or remuneration for furnishing the proxy voting advice from any person other than a recipient of the advice and other persons who receive similar advice under this subsection; and

(iv) The proxy voting advice is not furnished on behalf of any person soliciting proxies or on behalf of a participant in an election subject to the provisions of Rule 14a-11.

II. Paragraphs (a) and (b) of § 240.14a-4 are amended to read as follows:

**§ 240.14a-4 Requirements as to proxy.**

(a) The form of proxy (1) shall indicate in bold-face type whether or not the proxy is solicited on behalf of the issuer's board of directors or, if provided other than by a majority of the board of directors, shall indicate in bold-face type the identity of the persons on whose behalf the solicitation is made;

(2) shall provide a specifically designated blank space for dating the proxy card; and (3) shall identify clearly and impartially each matter or group of related matters intended to be acted upon, whether proposed by the issuer or by security holders. No reference need be made, however, to proposals as to which discretionary authority is conferred pursuant to paragraph (c) of this section.

(b)(1) Means shall be provided in the form of proxy whereby the person solicited is afforded an opportunity to specify by boxes a choice between approval or disapproval of, or abstention with respect to, each matter or group of related matters referred to therein as intended to be acted upon, other than elections to office. A proxy may confer discretionary authority with respect to matters as to which a choice is not specified by the security holder provided that the form of proxy states in bold-face type how it is intended to vote the shares represented by the proxy in each such case.

(2) A form of proxy which provides for the election of directors shall set forth the names of persons nominated for election as directors. Such form of proxy shall clearly provide any of the following means for security holders to withhold authority to vote for each nominee:

(i) A box opposite the name of each nominee which may be marked to indicate that authority to vote for such nominee is withheld; or

(ii) An instruction in bold-face type which indicates that the security holder may withhold authority to vote for any nominee by lining through or otherwise striking out the name of any nominee; or

(iii) Designated blank spaces in which the shareholder may enter the names of nominees with respect to whom the shareholder chooses to withhold authority to vote; or

(iv) Any other similar means, provided that clear instructions are furnished indicating how the shareholder may withhold authority to vote for any nominee.

Such form of proxy also may provide a means for the security holder to grant authority to vote for the nominees set forth, as a group, provided that there is a similar means for the security holder to withhold authority to vote for such group of nominees. Any such form of proxy which is executed by the security holder in such manner as not to withhold authority to vote for the election of any nominee shall be deemed to grant such authority, provided that the form of proxy so states in bold-face type.

*Instructions.* 1. Paragraph (2) does not apply in the case of a merger, consolidation or other plan if the election of directors is an integral part of the plan.

2. If applicable state law gives legal effect to votes cast against a nominee, then in lieu of, or in addition to, providing a means for security holders to withhold authority to vote, the issuer should provide a similar means for security holders to vote against each nominee.

III. Section 240.14a-5 is amended by adding paragraph (f) to read as follows:

**§ 240.14a-5 Presentation of information in proxy statement.**

(f) All proxy statements shall disclose, under an appropriate caption, the date by which proposals of security holders intended to be presented at the next annual meeting must be received by the issuer for inclusion in the issuer's proxy statement and form of proxy relating to that meeting, such date to be calculated in accordance with the provisions of rule 14a-8(a)(3)(i). If the date of the next

annual meeting is subsequently advanced by more than 30 calendar days or delayed by more than 90 calendar days from the date of the annual meeting to which the proxy statement relates, the issuer shall, in a timely manner, inform security holders of such change, and the date by which proposals of security holders must be received, by any means reasonably calculated to so inform them.

IV. Paragraph (a)(3)(i) of § 240.14a-8 is amended to read as follows:

**§ 240.14a-8 Proposals of security holders.**

(a) \* \* \*

(3) \* \* \*

(i) *Annual Meetings.* A proposal to be presented at an annual meeting shall be received at the issuer's principal executive offices not less than 90 days in advance of the date of the issuer's proxy statement released to security holders in connection with the previous year's annual meeting of security holders, except that if no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than 30 calendar days from the date contemplated at the time of the previous year's proxy statement, a proposal shall be received by the issuer a reasonable time before the solicitation is made.

V. Item 5(c) of § 240.14a-101 is amended and paragraph (g) added to Item 6 thereof to read as follows:

**§ 240.14a-101 Schedule 14A. Information required in proxy statement.**

*Item 5. Voting Securities and Principal Holders Thereof*

(c) If action is to be taken with respect to the election of directors and if the persons solicited have cumulative voting rights: (1) Make a statement that they have such rights, (2) briefly describe such rights, (3) state briefly the conditions precedent to the exercise thereof, and (4) if discretionary authority to cumulate votes is solicited, so indicate.

*Item 6. Directors and Executive Officers*

(g) With respect to those classes of voting stock which participated in the election of directors at the most recent meeting at which directors were elected:

(1) State in an introductory paragraph the percentage of shares present at the meeting and voting or withholding authority to vote in the election of directors; and (2) disclose in tabular format, following such introductory paragraph, the percentage of total shares cast for and withheld from the vote for or, where applicable, cast against, each nominee,

which, respectively, were voted for and withheld from the vote for, or voted against, such nominee. When groups of classes or series of classes voted together in the election of a director or directors, they shall be treated as a single class for the purpose of the preceding sentence.

*Instructions.* 1. Calculate the percentage of shares present at the meeting and voting or withholding authority to vote in the election of directors, referred to in paragraph g(1), by dividing the total shares cast for and withheld from the vote for or, where applicable, voted against, the director in respect of whom the highest aggregate number of shares was cast by the total number of shares outstanding which were eligible to vote as of the record date for the meeting.

2. No information need be given in response to item 6(g) unless, with respect to any class of voting stock (or group of classes which voted together), 5% or more of the total shares cast for and withheld from the vote for or, where applicable, cast against any nominee were withheld from the vote for or cast against such nominee.

3. If an issuer elects less than the entire board of directors annually, disclosure is required as to all directors if 5% or more of the total shares cast for and withheld from, the vote for, or, where applicable, cast against any incumbent director were withheld from, or cast against the vote for such director at the meeting at which he was most recently elected.

4. No information need be given in response to item 6(g) if the issuer has previously furnished to its security holders a report of the results of the most recent meeting of security holders at which directors were elected which includes: (1) a description of each matter voted upon at the meeting and a statement of the percentage of the shares voting which were voted for and against each such matter; and (2) the information which would be called for by this item 6(g). If an issuer has previously furnished such results to its security holders, this fact should be set forth in the issuer's cover letter accompanying the filing of preliminary proxy materials with the Commission.

[Secs. 12, 13, 14, 15(d), 23(a), 48 Stat. 892, 894, 895, 901; secs. 1, 3, 8, 49 Stat. 1375, 1377, 1379; sec. 203(a), 49 Stat. 704; sec. 202, 68 Stat. 686; secs. 3, 4, 5, 6, 78, Stat. 565-568, 569, 570-574; secs. 1, 2, 3, 82 Stat. 454, 455, secs. 28(c), 1, 2, 3-5, 84 Stat. 1435, 1497; secs. 10, 18, 89 Stat. 119, 155; sec. 308(b), 90 Stat. 57; sec. 204, 91 Stat. 1500; 15 U.S.C. 781, 78m, 78n, 78o(d), 78w(a)]

The Commission finds that any changes in the amended rules and schedule adopted from those published in Securities Exchange Act Release No. 16104 have already been generally subject to comment and are either

technical in nature or less burdensome than previous requirements so that further notice and rulemaking procedures pursuant to the Administrative Procedure Act (5 U.S.C. 553) are not necessary.

By the Commission,  
Shirley E. Hollis,  
Assistant Secretary,  
November 21, 1979.

BILLING CODE 8010-01-M

EXHIBIT

**UB** UNIVERSAL  
BUSINESS  
CORPORATION

270 Universal Center, Horizon, California 91770

**Proxy**

**This Proxy is Solicited on Behalf of the Board of Directors,**

The undersigned hereby appoints John Red, Mary Blue, and Lee White as Proxies, each with the power to appoint his or her substitute, and hereby authorizes them to represent and to vote, as designated below, all the shares of common stock of Universal Business held on record by the undersigned on October 23, 1980, at the annual meeting of shareholders to be held on December 20, 1980 or any adjournment thereof.

1. ELECTION OF DIRECTORS FOR all nominees listed below  WITHHOLD AUTHORITY   
(except as marked to the contrary below) to vote for all nominees listed below

(INSTRUCTION: To withhold authority to vote for any individual nominee strike a line through the nominee's name in the list below.)

J. Allen, S. Brown, J. Doe, J. Green, G. Johansen, A. Jones, M. Roe, J. Smith and M. Stanton

2. PROPOSAL TO APPROVE THE APPOINTMENT OF DOLLAR AND CENTS as the independent public accountants of the corporation

FOR  AGAINST  ABSTAIN

3. STOCKHOLDER PROPOSAL RELATING TO FORM AND CONTENT OF POST-MEETING REPORTS:

FOR  AGAINST  ABSTAIN

4. In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

This proxy when properly executed will be voted in the manner directed herein by the undersigned stockholder. If no direction is made, this proxy will be voted for Proposals 1, 2 and 3.

Please sign exactly as name appears below. When shares are held by joint tenants, both should sign. When signing

as attorney, as executor, administrator, trustee or guardian, please give full title as such. If a corporation, please sign in full corporate name by President or other authorized officer. If a partnership, please sign in partnership name by authorized person.

SAMPLE CARD A

DATED \_\_\_\_\_, 1980

PLEASE MARK, SIGN, DATE AND RETURN THE PROXY CARD PROMPTLY USING THE ENCLOSED ENVELOPE

Signature \_\_\_\_\_

Signature if held jointly \_\_\_\_\_

## EXHIBIT

**UB** UNIVERSAL  
BUSINESS  
CORPORATION

270 Universal Center, Horizon, California 91770

## Proxy

### This Proxy is Solicited on Behalf of the Board of Directors,

The undersigned hereby appoints John Red, Mary Blue, and Lee White as Proxies, each with the power to appoint his or her substitute, and hereby authorizes them to represent and to vote, as designated below, all the shares of common stock of Universal Business held on record by the undersigned on October 23, 1980, at the annual meeting of shareholders to be held on December 20, 1980 or any adjournment thereof.

1. ELECTION OF DIRECTORS FOR all nominees listed below  WITHHOLD AUTHORITY  
(except as marked to the contrary below)  to vote for all nominees listed below

J. Allen, S. Brown, J. Doe, J. Green, G. Johansen, A. Jones, M. Roe, J. Smjth and M. Stanton

(INSTRUCTION: To withhold authority to vote for any individual nominee write that nominee's name on the space provided below.)

2. PROPOSAL TO APPROVE THE APPOINTMENT OF DOLLAR AND CENTS as the independent public accountants of the corporation  
 FOR  AGAINST  ABSTAIN
3. STOCKHOLDER PROPOSAL RELATING TO FORM AND CONTENT OF POST-MEETING REPORTS:  
 FOR  AGAINST  ABSTAIN

4. In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

This proxy when properly executed will be voted in the manner directed herein by the undersigned stockholder. If no direction is made, this proxy will be voted for Proposals 1, 2 and 3.

Please sign exactly as name appears below. When shares are held by joint tenants, both should sign. When signing as attorney, as executor, administrator, trustee or guardian, please give full title as such. If a corporation, please sign in full corporate name by President or other authorized officer. If a partnership, please sign in partnership name by authorized person.

SAMPLE CARD B

DATED \_\_\_\_\_, 1980

PLEASE MARK, SIGN, DATE AND RETURN THE PROXY CARD PROMPTLY USING THE ENCLOSED ENVELOPE

Signature \_\_\_\_\_

Signature if held jointly \_\_\_\_\_

EXHIBIT

**UB** UNIVERSAL  
BUSINESS  
CORPORATION

**Proxy**

270 Universal Center, Horizon, California 91770

**This Proxy is Solicited on Behalf of the Board of Directors,**

The undersigned hereby appoints John Red, Mary Blue, and Lee White as Proxies, each with the power to appoint his or her substitute, and hereby authorizes them to represent and to vote, as designated below, all the shares of common stock of Universal Business held on record by the undersigned on October 23, 1980, at the annual meeting of shareholders to be held on December 20, 1980 or any adjournment thereof.

1. ELECTION OF DIRECTORS FOR all nominees listed below  WITHHOLD AUTHORITY   
*(except as marked to the contrary below)* to vote for all nominees listed below

*(INSTRUCTION To withhold authority to vote for any individual nominee mark the box next to the nominee's name below.)*

J. Allen  S. Brown  J. Doe  J. Green  G. Johansen  A. Jones  M. Roe  J. Smith  M. Stanton

2. PROPOSAL TO APPROVE THE APPOINTMENT OF DOLLAR AND CENTS as the independent public accountants of the corporation

FOR  AGAINST  ABSTAIN

3. STOCKHOLDER PROPOSAL RELATING TO FORM AND CONTENT OF POST-MEETING REPORTS:

FOR  AGAINST  ABSTAIN

4. In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

This proxy when properly executed will be voted in the manner directed herein by the undersigned stockholder. If no direction is made, this proxy will be voted for Proposals 1, 2 and 3.

Please sign exactly as name appears below. When shares are held by joint tenants, both should sign. When signing as attorney, as executor, administrator, trustee or guardian, please give full title as such. If a corporation, please sign in full corporate name by President or other authorized officer. If a partnership, please sign in partnership name by authorized person.

SAMPLE CARD C

DATED: \_\_\_\_\_, 1980

PLEASE MARK, SIGN, DATE AND RETURN THE PROXY CARD PROMPTLY USING THE ENCLOSED ENVELOPE

Signature \_\_\_\_\_

Signature if held jointly \_\_\_\_\_

# Federal Register

---

Thursday  
November 29, 1979

---

Part VIII

## Environmental Protection Agency

---

Assessing The Environmental Effects of  
EPA Actions Abroad

**ENVIRONMENTAL PROTECTION  
AGENCY**
**40 CFR Part 6**
**[FRL 1337-2]**
**Assessing the Environmental Effects  
of EPA Actions Abroad**
**AGENCY:** Environmental Protection Agency.

**ACTION:** Proposed Regulation.

**SUMMARY:** On January 4, 1979, President Carter signed Executive Order 12114 pertaining to the "Environmental Effects Abroad of Major Federal Actions." This Executive Order required Federal agencies to develop implementing procedures. This amendment to the EPA implementing procedures on the National Environmental Policy Act under 40 CFR Part 6 sets forth general policy, criteria, and requirements to be carried out within this Agency.

**DATE:** Written comments will be received with respect to this proposal. Comments must be received on or before January 14, 1980. Upon receipt and analysis of comments, EPA will publish a final rule.

**ADDRESS:** The mailing address for all comments is the Office of Environmental Review (A-104), Environmental Protection Agency, 401 M Street SW, Washington, D.C. 20460; Attention: Thomas Sheckells.

**FOR FURTHER INFORMATION CONTACT:** Thomas Sheckells, Office of Environmental Review, Environmental Protection Agency, 401 M Street SW, Washington, D.C. 20460; Telephone 202-755-0790.

**SUPPLEMENTARY INFORMATION:** Executive Order 12114 requires Federal agencies to assess the environmental effects of major actions they undertake abroad. This includes the possibility of preparing environmental impact statements for significant actions undertaken in the global commons as well as environmental reviews of significant activities undertaken in the global commons and foreign nations as required by these procedures. This proposal adds a new Subpart J under 40 CFR Part 6.

Dated: November 20, 1979.

Douglas M. Costle,  
Administrator.

**Subpart J—Assessing the Environmental  
Effects of EPA Actions Abroad**

- Sec.  
6.1001 Purpose and policy.  
6.1002 Applicability.

- Sec.  
6.1003 Environmental review and assessment requirements.  
6.1004 Special notice to Foreign Nations.  
6.1005 Lead or Cooperating Agency.  
6.1006 Exemptions.  
6.1007 Implementation.

**Subpart J—Assessing the  
Environmental Effects of EPA Actions  
Abroad**
**§ 6.1001 Purpose and policy.**

(a) *Purpose.* On January 4, 1979, the President signed Executive Order 12114 relating to "Environmental Effects Abroad of Major Federal Actions." The purpose of this Executive Order is to enable responsible Federal officials in carrying out or approving Federal actions abroad to be informed of pertinent environmental considerations and to consider fully the environmental impacts of the actions undertaken. The Order furthers the purpose of the National Environmental Policy Act and the Marine Protection, Research and Sanctuaries Act. The procedures set forth below reflect EPA's duties and responsibilities as required under the Executive Order and satisfy the requirement for issuance of procedures under section 2-1 of the Executive Order.

(b) *Policy.* It shall be the policy of this Agency to carry out the purpose and requirements of the Executive Order to the fullest extent possible. EPA, within the realm of its expertise, shall work with the Department of State and the Council on Environmental Quality to provide information to other Federal agencies and foreign nations to heighten awareness of and interest in the environment. EPA shall further cooperate to the extent possible with Federal agencies to lend special expertise and assistance in the preparation of required environmental documents under the Executive Order. EPA shall perform environmental reviews of activities undertaken in the global commons and foreign nations as required under Executive Order 12114 and as set forth under these procedures.

**§ 6.1002 Applicability.**

(a) *Administrative actions requiring environmental review.* The environmental review requirements apply to the activities of EPA as set forth below:

(1) Research or demonstration projects undertaken in foreign nations or in the global commons which significantly affect the related environment.

(2) Ocean dumping activities carried out under section 102 of the Marine Protection, Research and Sanctuaries

Act of 1972 (MPRSA) which significantly affect the related environment.

(3) Permitting or licensing by EPA of facilities which will significantly affect the environment of a foreign nation contiguous to the United States. This may include such actions as the issuance by EPA of hazardous waste treatment, storage, or disposal facility permits pursuant to section 3005 of the Resource Conservation and Recovery Act, NPDES permits pursuant to section 402 of the Clean Water Act, or prevention of significant deterioration approvals pursuant to Part C of the clean Air Act.

**§ 6.1003 Environmental review and  
assessment requirements.**

(a) *Research and demonstration projects.* The appropriate Assistant Administrator is responsible for performing the necessary degree of environmental review on research and demonstration projects undertaken by EPA. If the research or demonstration project is undertaken in the global commons, an environmental assessment shall be prepared to assist the responsible official in determining whether an EIS is necessary. If it is determined that the action significantly affects the environment of the global commons an EIS shall be prepared. If the undertaking is located in a place other than the global commons and significantly affects a foreign nation or nations, a bilateral or multilateral environmental study shall be prepared by EPA. EPA shall afford the affected foreign nation or international body or organization an opportunity to participate in this study. This environmental study shall result in a concise environmental document setting forth a discussion of the need for the action, an environmental impact analysis of the various alternatives considered and a listing of the agencies consulted. To the extent applicable, the Assistant Administrator shall utilize the criteria set forth under 40 CFR 6.506(a) (1) through (6) and (b) in determining what is a significant effect.

(b) *Ocean dumping activities.* The Assistant Administrator for Water and Waste Management is responsible for preparing appropriate environmental documents relating to ocean dumping activities in the global commons under section 102 of the MPRSA. For ocean dumping site designations prescribed pursuant to section 102(c) of the MPRSA and 40 CFR Part 228, an environmental impact statement shall be prepared consistent with the requirements of EPA's Procedures for the Voluntary Preparation of Environmental Impact Statements dated October 21, 1974 (see

39 FR 37419). Also an environmental impact statement shall be prepared for the establishment or revision of criteria under section 12(a) of MPRSA. For individual permits issued by EPA under section 102(b), an environmental assessment shall be prepared. The permit applicant shall submit with the application an environmental assessment which includes a discussion of the need for the action, an outline of alternatives, and an analysis of the environmental impact of the proposed action and alternatives consistent with the EPA criteria established under section 102(a) of MPRSA. The information submitted by applicants under 40 CFR Part 221 shall be sufficient to satisfy the environmental assessment requirement.

(c) *EPA permitting and licensing activities.* The appropriate Regional Administrator is responsible for conducting concise environmental reviews with regard to hazardous waste permitting, water permitting, and prevention of significant deterioration (PSD) approvals for such actions undertaken by EPA which affect contiguous foreign nations. The information submitted by applicants for such permits or approvals under the applicable consolidated permit and PSD regulations shall be sufficient to satisfy the background information requirements for conducting these concise reviews. This concise review shall focus on assuring the applicant's proposed action complies with existing criteria established under applicable program regulations.

(d) *Review by other Federal agencies and other appropriate officials.* The responsible officials shall consult with other Federal agencies with relevant expertise during the preparation of the environmental document. As soon as feasible after preparation of the environmental document, the responsible official shall make the document available to the Council on Environmental Quality, Department of State, and other appropriate Federal agencies and other appropriate officials. The responsible official shall work with the Department of State to establish protocols for communicating with and making documents available to foreign nations and international organizations.

#### § 6.1004 Special notice to foreign nations.

(a) *Toxic chemicals.* Section 12(b) of the Toxic Substances Control Act (TSCA) requires that exporters of chemical substances and mixtures for which submission of data is required under section 4 or 5(b) of TSCA shall notify EPA of the exportation or intent to export; EPA in turn is required to

notify the foreign nation of the availability of such data. Furthermore, the exporter of any chemical substance or mixture for which an order has been issued under section 5 of TSCA, a rule has been proposed or promulgated under section 5 or 6 of TSCA, or an action is pending or relief has been granted under section 5 or 7 of TSCA, shall notify EPA of such exportation or intent to export; EPA in turn shall notify the foreign nation of such rule, order, action or relief. The Assistant Administrator for Toxic Substances is responsible for carrying out these provisions.

(b) *Pesticides.* Section 17(b) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requires that EPA, through the State Department, notify foreign nations whenever a registration, or a cancellation or suspension of the registration of a pesticide becomes effective, or ceases to be effective. Also, under section 17(a)(2) of FIFRA for any unregistered pesticide, prior to export, the foreign purchaser is required to sign a statement acknowledging that the purchaser understands that such pesticide is not registered and cannot be sold in the United States. EPA, through the State Department, is responsible for transmitting a copy of the statement to the importing foreign nation. The Assistant Administrator for Toxic Substances is responsible for carrying out the provisions under section 17(b) of FIFRA. The Assistant Administrator for Enforcement is responsible for carrying out the provisions under section 17(a)(2) of FIFRA.

#### § 6.1005 Lead or Cooperating Agency.

(a) *Lead Agency.* In accordance with 40 CFR 1501.5, Federal agencies involved in actions directly related to each other must take appropriate steps to create a lead agency. EPA shall to the fullest extent possible invoke these principles pertaining to lead agency.

(b) *Cooperating Agency.* Under section 2-4(d) of the Executive Order, Federal agencies with special expertise are encouraged to provide appropriate resources to the agency preparing environmental documents in order to avoid duplication of resources. EPA shall to the fullest extent possible invoke the principles of a cooperating agency under 40 CFR 1501.6 in working with the lead Federal agency. In those cases where other program commitments preclude the degree of involvement requested by the lead agency, the involved EPA official shall inform the lead agency in writing.

#### § 6.1006 Exemptions.

Under section 2-5(c) of the Executive Order, Federal agencies may provide for exemptions from the prescribed environmental review and assessment requirements as may be necessary to meet emergency circumstances, situations involving exceptional foreign policy and national security sensitivities, and other such special circumstances. The responsible official, in consultation with the Director, Office of Environmental Review (OER), and the Director, Office of International Activities (OIA), shall obtain approval for such exemptions from the Administrator. The Department of State and the Council on Environmental Quality shall be consulted as soon as possible on the utilization of such exemptions.

#### § 6.1007 Implementation.

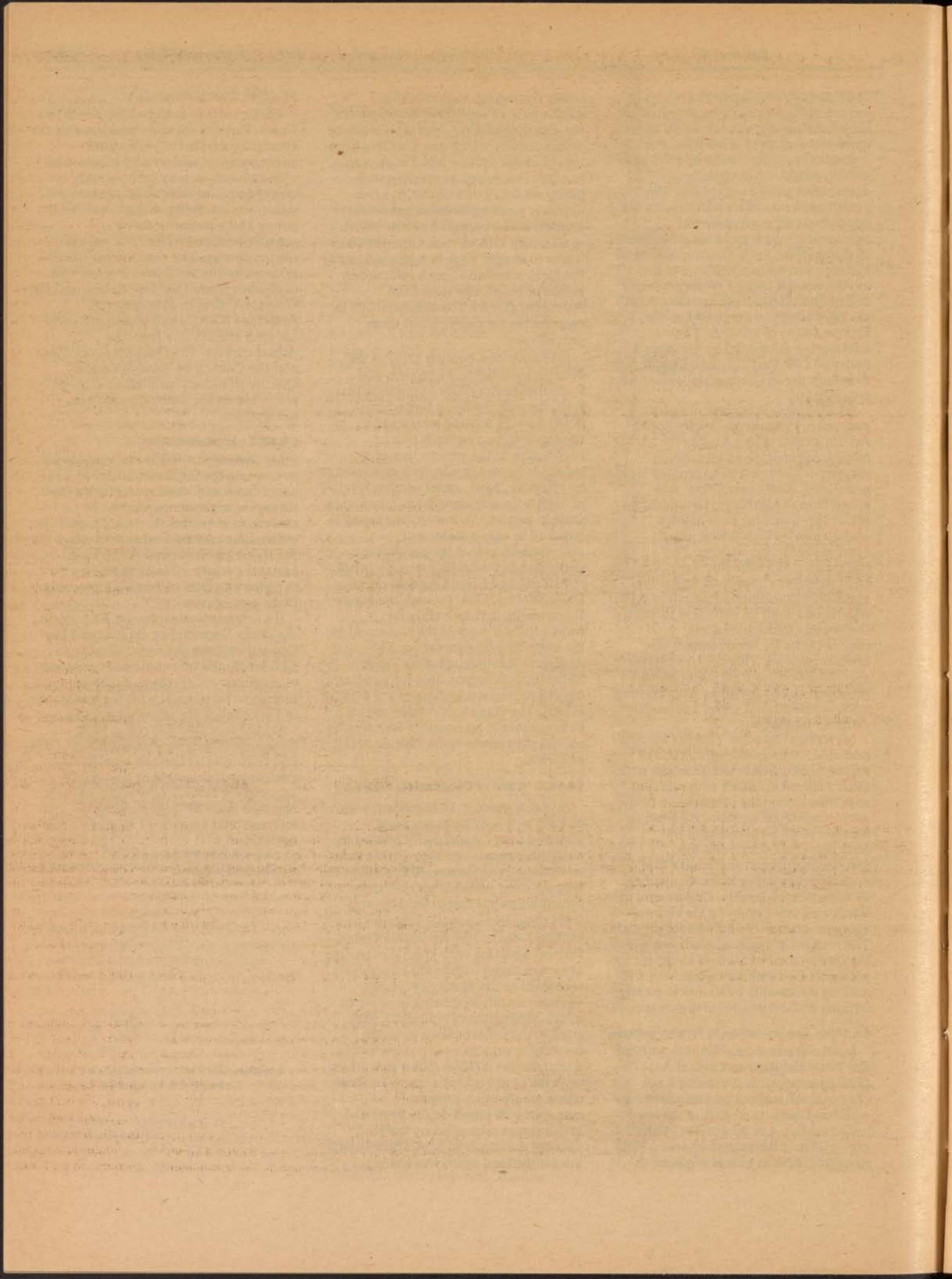
(a) *Oversight.* OER is responsible for overseeing the implementation of these procedures and shall consult with OIA wherever appropriate. Except as otherwise provided above, OIA shall be utilized for making formal contacts with the Department of State. OER shall assist the responsible officials in carrying out their responsibilities under these procedures.

(b) *Information exchange.* EPA shall assist the Department of State and the Council on Environmental Quality in developing the informational exchange on environmental review activities with foreign nations. OER with the assistance of OIA shall undertake this activity.

(c) *Unidentified activities.* EPA program officials shall consult with OER and OIA to establish the type of environmental review or document appropriate for any new requirements imposed upon EPA by statute, international agreement or other agreement.

[FR Doc. 79-36692 Filed 11-28-79; 8:45 am]

BILLING CODE 6560-01-M



# **federal registers**

---

Thursday  
November 29, 1979

---

**Part IX**

## **Department of Agriculture**

---

**Science and Education Administration**

---

**Plant Biology and Human Nutrition;  
Competitive Research Grants for Basic  
Research**

## DEPARTMENT OF AGRICULTURE

## Science and Education Administration

Plant Biology and Human Nutrition;  
Competitive Research Grants for Basic Research

Notice is hereby given that pursuant to the authority contained in section 2(b) of the Act of August 4, 1965, Pub. L. 89-106, as amended by section 1414 of Pub. L. 95-113, the Science and Education Administration (SEA) through its Competitive Research Grants Office (CRGO) will award competitive grants for mission-oriented basic research in four areas of plant biology (biological nitrogen fixation, biological stress on plants, photosynthesis, and genetic mechanisms for crop improvement) and human nutrition (nutrient requirements). Proposals may be submitted through their parent organizations by scientists associated with State agricultural experiment stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals.

A total of \$16 million is available for such grants during Fiscal Year 1980. Of that amount \$13 million (less administrative expenses) is available for plant sciences and \$3 million (less administrative expenses) is available for human nutrition.

The CRGO Staff is located in Suite 103, Rosslyn Commonwealth Building, 1300 Wilson Boulevard, Arlington, Virginia 22209 (opposite the Rosslyn Station of the Metrorail Blue Line).

Proposals submitted for consideration for FY 1980 funding should be postmarked by the following dates:

Wednesday, January 2, 1980, for Genetic Mechanisms for Crop Improvement and Biological Nitrogen Fixation;

Friday, January 11, 1980, for Biological Stress on Plants; and

Friday, February 1, 1980, for Human Nutrient Requirements and Photosynthesis.

Proposals will be reviewed by a scientist serving as a CRGO Program Manager, by *ad hoc* reviewers, and by an assembled panel of scientists who constitute a spectrum of expertise for the Program to which the proposal is assigned. The Guide to Proposal Preparation for these competitive grants consists of three parts:

I. Types of Research to be Supported in FY 1980;

II. Proposal Submission;

III. Proposal Review and Evaluation.

This Notice incorporates suggestions from various agencies of the U.S. Department of Agriculture (USDA), from liaison representatives of other Federal agencies and prospective performing organizations, and from *ad hoc* groups on plant sciences and on human nutrition.

The General Provisions for Grants and Cooperative Agreements (SEA FORM 638, May 1979) apply to these grants. A copy is available upon request from the SEA Grants Administrative Management Office.

An approved final Impact Analysis Statement is available from David W. Krogmann, Head, Competitive Research Grants Office, Suite 103, Rosslyn Commonwealth Building, 1300 Wilson Boulevard, Arlington, Virginia 22209. This Notice has not been determined significant under USDA criteria implementing Executive Order 12044. It has been determined that because of the need to implement this program so that research relating to plant production can be initiated in the Spring of 1980 compliance with the notice and public procedure provisions of 5 U.S.C. 553 is impracticable and contrary to the public interest and, in accordance with E.O. 12044, that it is not possible to publish this notice in proposed form and allow 60 days for public comment.

**Note.**—The reporting and/or recordkeeping requirements contained herein have been approved by the Office of Management and Budget in accordance with the Federal Reports Act of 1942.

Dated: November 23, 1979.

Anson R. Bertrand,

Director, Science and Education.

## Guide to Proposal Preparation

## I. Types of Research to be Supported in Fiscal Year 1980

The Science and Education Administration (SEA) will award research grants for periods not to exceed five years, on a competitive basis, to support basic research underlying the mission of the USDA. Basic research grants will be considered in selected area of plant biology and human nutrition, which have been considered by a number of scientific groups to possess exceptional opportunity for fundamental scientific discovery and for contributing, in the long run, to applied research and development vitally needed on important food and nutrition problems. This grants program results from the recognition that new, innovative approaches and enhanced levels of funding are needed as we seek ways to increase food production and improve human nutrition.

Consideration will be given to research proposals which address fundamental questions in the areas noted below and which are consistent with the long-range missions of USDA. While a basic guideline for each of the programs is provided to assist members of the scientific community in assessing their interest in the program areas and to delineate certain important areas where new information is vitally needed, the guidelines are not meant to provide boundaries or to detract from the creativity of potential investigators. Accordingly, it is hoped that innovative projects in the so-called "high-risk" category as well as those which may have a higher payoff potential will be submitted.

The following guidelines are thus provided as a base from which proposals may be developed.

A. *Plant Biology*. 1. Biological Nitrogen Fixation. The most common limiting nutrient for plant growth is nitrogen. The presence of soil nitrogen is due to past accretions in nature, biological nitrogen fixation or the application of nitrogenous fertilizer. The latter represents a significant energy input in cropping and ultimately increases food costs. Thus, the enhancement of biological nitrogen fixation capacity in plant-soil microbial associations is of major importance. Research aimed at understanding nitrogen fixing mechanisms in both symbiotic and free living organisms as well as the fate of fixed nitrogen is of high priority.

In general, the objectives of this program include building a foundation of basic information concerning nitrogen fixation as it relates to enhancing the process in currently known systems and in providing a base for developing new nitrogen fixing association, by genetic transfer or other means, for crop species not now possessing such capability. Moreover the process of nitrification (the oxidation of ammonia to nitrate), the assimilation and utilization of ammonia and nitrate, and denitrification (the reduction of nitrate to volatile forms of nitrogen which are lost from the soil) all play important roles in plant growth. Soil nitrogen, whether supplied by biological nitrogen fixation or as chemical fertilizer serves to increase food production only when it is present in an available form which is not lost from the plant-soil ecosystem.

Examples of research areas encompassed in this program include: (a) Structure and mechanism of action of nitrogenase; the regulation of nitrogenase activity and synthesis; the relationship between nitrogenase and hydrogenase activities in nitrogen fixing

organisms; (b) energetics of the nitrogen fixation process including competitive processes within the plant; (c) infection by *Rhizobium* and conditions for effective nodulation; basis of the recognition process between symbiotic organisms; factors controlling symbiont specificity; competition in the soil; (d) identification of additional organisms capable of nitrogen fixation and quantitation of their contribution; (e) relation between the fixation process and the processes of assimilation, nitrification, and denitrification; (f) the development of methods for the *in situ* measurement of nitrification and denitrification, and determination of the actual extent of these processes in nature; (g) an analysis of the distribution of denitrifying and nitrifying bacteria and elucidation of control mechanisms operative on nitrogen transformations in the major species; (h) studies of the transfer and utilization of fixed nitrogen including the enzymes involved in the assimilation and dissimilation of fixed nitrogen in bacteria and crop plants; and (i) the efficiency of nitrogen utilization by crop plants in the production of food proteins.

Emphasis in program priorities will be on innovative approaches which may contribute to a thorough understanding of nitrogen cycling encompassing biochemistry, cellular and developmental biology, genetics and genetic manipulation, and other relevant life science disciplines. An understanding of these processes is essential to the development of strategies which maximize nitrogen fixation, minimize inputs of nitrogenous fertilizers and optimize their utilization in agriculture.

2. Photosynthesis. There are many indications that productivity of crop plants may be increased by increasing their photosynthetic efficiency. Basic research aimed toward providing an increased understanding of photosynthesis and associated carbon metabolism is an essential part in achieving that objective. Expansion of research is needed, but not exclusively, in three major sub-areas: (a) The identification of aspects of photosynthesis which limit the conversion of solar energy into stable chemical products which include such areas as the mechanisms of energy capture and conversion, structure, synthesis, and turnover of the photosynthetic apparatus, CO<sub>2</sub> fixation, photorespiration and dark respiration; (b) the relation of plant development to photosynthesis including the development of photosynthetic competence, translocation and partition

of photosynthetic products and attendant energetic considerations, and design of whole leaf and whole plant structures best suited for photosynthetic productivity; and (c) the design of new methods of genetic and cellular manipulation to improve photosynthetic efficiency in plants to include studies of the chloroplast genome, of nuclear genes regulating photosynthesis, and analysis of regulatory steps controlling both nuclear and cytoplasmic genome expression and their interactions. Other research designed to generate new information in areas that relate to photosynthesis and its accompanying processes in the context of the objectives of the program may also be considered a part of this area.

3. Genetic Mechanisms for Crop Improvement. The major aim of this program is to encourage innovative or unique genetic approaches directed to the development of genetically superior varieties of agricultural crops. The approaches should be aimed at obtaining novel genetic combinations or gene modifications difficult or impossible to achieve using conventional plant breeding techniques. This research program thus will emphasize the following: (a) Cell culture studies including the regeneration of plants from single cells, cell/protoplast fusion, mutagenesis, and incorporation of foreign DNA, chromosome, or organelle; (b) development of effective cellular and molecular methods for identification of plant characteristics or genes which are significant targets for genetic manipulation; (c) development of methods for producing, selecting, and transferring desired genetic traits including both qualitative and quantitative traits; (d) acquisition of basic information on nuclear and organelle plant gene expression and diversity at the molecular, cellular, or developmental level to facilitate application to plant improvement; and (e) basic genetic studies on maintenance, alteration, and utilization of unadapted and wild germplasm. Proposals to conduct well-defined basic plant genetic studies in support of plant breeding programs and designed to improve understanding of basic genetic mechanisms of the crop are encouraged. These guidelines are not meant to exclude other new or unusual approaches to crop improvement.

4. Biological Stress on Plants. Plants are exposed to many stresses that may adversely affect their productivity and usefulness to man. This grants program will support research on stresses on plants arising from their interactions with other plants or with other

biological agents such as weeds, insects, nematodes, fungi, bacteria, viruses, and mycoplasma-like organisms. The ultimate goal of the research supported by this program is to reduce losses in plant productivity from damage caused by biologically generated stresses. The program will emphasize studies that enhance our understanding of (a) how stressful interactions are established between plants and other biological agents, (b) how such interactions are influenced by environmental and other factors inherent to the interacting organisms, (c) how the interactions reduce plant productivity and usefulness to man, (d) how plants react to stresses generated by such interactions, and (e) how damage from such interactions may be reduced or eliminated. The interactions may be studied at any number of levels; i.e., population, organismal, cellular and molecular; and by various approaches including genetics, molecular biology, and biochemistry. These may include studies on plants separated from stress-causing organisms or on stress-causing organisms separated from their target plants. However, such studies should provide information that will be relevant to the understanding of the causes, consequences, and avoidance of biologically generated stresses on plants. The research supported by this program will focus on the identification of new approaches to reduction of plant stress caused by biological agents, approaches that will be both effective and compatible with social and environmental concerns.

B. Human Nutrition. Proposals are invited in the following subject matter area. Support will not be provided for clinical research nor for demonstration and action projects.

Human Requirements for Nutrients. Research in this program is intended to contribute to the improvement of human nutritional status by increasing our understanding of requirements for nutrients in relation to different patterns of food intake. The objective is to support basic, creative research that will help to fill gaps in the knowledge about nutrient requirements, bioavailability, the interrelationships of nutrients, and the nutritional value of foods that are consumed in the U.S. as these relate to requirements. Special attention will be given to requirements for trace constituents. Innovative approaches designed to improve methods of research and investigation that will increase the reliability and validity of research results will be given special consideration.

Proposals dealing with processing techniques should be clearly oriented towards determination of human nutrient requirements. Proposals which concern utilization or production of a food commodity should emphasize the relationship to specific human nutrient requirements. It is especially important that proposals emphasize innovative (creative), fundamental (basic) research.

## II. Proposal Submission

**A. Proposal Purpose.** The Purpose of a proposal is to persuade the reviewing peer scientists and the CRGO staff that the proposed project is feasible and sufficiently meritorious to warrant support under the criteria enumerated in Part IIIB. It should be clear, concise, technically correct, and relevant to the competitive grants program. The qualifications for the investigator, the institution facilities, and the level of funding to be devoted to the proposed project should be clearly delineated.

**B. Who May Submit Proposals.** Proposals for support under the competitive research grants program may be submitted by qualified scientists associated with the State agricultural experiment stations, all colleges and universities, other research institutions and organizations, Federal agencies, private organizations or corporations, and individuals. Proposals from scientists at non-United States organizations will not be considered for support. Only in special situations, where it can be demonstrated that a proposed project will contribute directly to breakthroughs in the food and agricultural sciences, will proposals from unaffiliated scientists be given favorable consideration.

**C. Where and When to Submit Research Proposals.** Research proposals must be submitted by the time limits set below to: Grants Administrative Management Office, ATTENTION: Competitive Research Grants Program, Science and Education Administration, USDA, 1300 Wilson Boulevard, Suite 103, Arlington, Virginia 22209.

Proposals will be reviewed by peer panels (as described in Part III) which will assemble on specific dates. In order to be considered for funding during Fiscal Year 1980, the proposals must be postmarked by the following dates:

Wednesday, January 2, 1980, for Genetic Mechanisms for Crop Improvement and for Biological Nitrogen Fixation;

Friday, January 11, 1980, for Biological Stress on Plants; and

Friday, February 1, 1980, for Human Nutrient Requirements and for Photosynthesis.

If copies of the proposal are mailed in more than one package, the number of packages should be marked on the outside of each. Proposals must be sent prepaid, not collect. The acknowledgment of receipt of the proposal will contain a proposal number, and identify the cognizant CRGO program. Later inquiries, addenda, revised budgets, etc., should be addressed to the cognizant program office and be identified with the CRGO proposal number.

**D. Considerations in Submitting Proposals.**—A number of situations frequently encountered in the conduct of research require special information and supporting documentation before funding can be approved for the project. Among these are the following:

1. research which has an actual and/or potential impact on the environment;
2. research at a registered historic or cultural property;
3. research involving the use of *in vitro* generated recombinant DNA; and
4. research involving the use of human subjects, hazardous materials, or laboratory animals.

The proposal should address each relevant item and provide information on the status of any special permissions, clearances, or provisions. Further, before submitting a proposal, the endorsing authorized organizational representative should ensure that:

1. The proposed project is consistent with the policies and goals of the submitting organization;
2. the organization can make available the necessary facilities, general and special purpose equipment, and services for the conduct of the project;
3. the organization can make available the necessary personnel for the amounts of time estimated to be required;
4. the organization has legal authority to accept grants and the requisite policies, procedures, and personnel to meet the standards described in Appendix VI;
5. the total costs estimated to be required for the conduct of the project are fair and reasonable and there is a plan for meeting such costs either from grant funds or from some other source; and
6. the costs which SEA is being asked to support are allowable and the treatment of direct and indirect costs in the proposal budget is consistent with applicable Federal cost principles and with the policies of the submitting organization.

If not previously done, the submitting organization must also separately furnish to the grants administrative management office the organizational

information and assurances contained in Appendix VI.

**E. What to Submit.**—The research proposal should be prepared on standard sized paper (no larger than 8½" x 11"), with pages numbered at the bottom, and printed only on one side of each sheet. Twenty copies of the proposal, including an original with all required signatures, are required for review by peer scientists and the CRGO staff.

Complete proposals, arranged in a standard sequence, are required to expedite review and evaluation. An administrative check should be made prior to mailing, to ensure that the items on the following checklist are included in the sequence indicated. Each item is discussed in detail in the following sections.

**Checklist of complete proposal contents.** Appendix formats should be duplicated for use in proposal.

1. Title Page (Appendix I)
2. Proposal Source Document (Appendix II, ORIGINAL ONLY)
3. Special Considerations (Appendix III)
4. Project Summary (1 page)
5. Project Description (15 page MAXIMUM)
6. References for Project Description
7. Vitae and Publications Lists
8. Budget (Appendix IV) and Budget Justification
9. Current and Pending Support (Appendix V)
10. Additions to Project Description (if any)
11. Appendix VI (if not previously submitted by the performing organization, 1 copy)

1. Title Page. **Format**—Appendix I is the format for the title page. The format as shown in Appendix I must be used. An original title page with all relevant signatures must be included with the original proposal. All copies of the proposal should also have a title page.

The SEA competitive research grant programs are intended to stimulate and support basic research in the plant sciences and human nutrition. Such research is national in scope, is not designed to meet the needs or address the problems of a particular State, area, or locality, does not include demonstration or pilot research projects which might have an important impact on local communities or areas, and does not involve capital construction. They are not grants-in-aid to States or political subdivisions or other organizations for which Reports of Federal Actions are required under the provisions of Treasury Circular 1082. Therefore, SEA does not require the use of Standard Form (SF 424) as prescribed by attachment M to Office of Management and Budget (OMB) Circular A-110 for use in programs covered by Part I, attachment A, to OMB Circular A-95.

**Title of Proposal.**—The title (80 characters maximum) will be used for the USDA Current Research Information System (CRIS), for information to Congress and for press releases. Therefore, it should not contain highly technical words. Phrases such as "Investigation of" or "Research on" should not be used. Other items of the title page are self-explanatory.

2. Proposal Source Document; only one copy required (Appendix II).

The proposal source document is an essential part of the proposal. It provides the CRGO staff with data for compiling information requested by Government agencies, the Congress, and the grantee community. The items are self-explanatory for the most part. Please note the following: (a) the Performing Organization is the Organization of the Principal Investigator where the work will be done, and it may be the same or different from the organization which receives the grant; and (b) the authorized organizational representative should be the same as the one given on the Title Page.

3. Special Considerations (Appendix III).

**Research Involving Special Considerations.**—Section II, D summarizes research situations which require special information and supporting documentation before funding can be approved for the project. If special information or supporting documentation is involved, the Proposal Source Document should so indicate. Since some types of research targeted for SEA support have a high probability of involving either recombinant DNA or human subjects, special instructions follow.

**Recombinant DNA.**—Principal investigators and endorsing performing organization officials must comply with the guidelines of the National Institutes of Health (See "NIH Guide for Grants and Contracts," Vol. 6, No. 19, Oct. 17, 1977, and subsequent revisions). A Memorandum of Understanding and Agreement and approval by the local Biohazards Safety Committee, must be provided before a grant can be awarded.

**Human Subjects.**—Safeguarding the rights and welfare of human subjects used in research supported by SEA grants is the responsibility of the performing organization. The informed consent of the human subject is a vital element in this process. Guidance is contained in Public Law 93-348, as implemented by Part 46, Subtitle A of Title 45 of the Code of Federal Regulations, as amended (45 CFR Part 46).

If the project involves human subjects at risk, the grantee must furnish SEA with a statement that the research plan has been reviewed and approved by the appropriate Institutional Review Board at the grantee organization, and that the grantee is in compliance with Department of Health, Education and Welfare (DHEW) policies, as amended, regarding the use of human subjects. Required documents should follow this page.

4. Project Summary.

Immediately following the certification should be a one-page Project Summary, to focus on: overall objectives and project goals; relevance and significance of the project; and experimental methods and approaches.

The Project Summary is *not* intended for the general reader so should be couched in language which will be meaningful to others in field of science.

5. Project Description (15-page maximum).

a. **Introduction.**—State overall objective(s) and long-term goal(s) of the proposed research. Review the most significant previous work, including your own, and describe the current status of research in this field. Document with references.

b. **Rationale and Significance.**—Present concisely the rationale behind the proposed research and list specific objectives for the total period of requested support. Show how these objectives relate to potential long-range improvements in food production or human nutrition. What is the potential importance of the proposed research? Discuss any novel ideas or contributions which the project offers.

c. **Experimental Plan.**—State clearly your hypotheses or the questions you will ask and give details of the research plan. Include a description of the experiments or other work proposed; the methods and techniques to be employed and their feasibility; the kinds of results expected; and the means by which the data will be analyzed or interpreted. Include, if appropriate, a discussion of pitfalls that might be encountered, and limitations of the procedures proposed. Insofar as possible, describe the principal experiments or observations in the sequence in which it is planned to carry them out, and indicate, if possible, a tentative schedule of the main steps of the investigations within the project period requested.

d. **Facilities and Equipment.**—Describe the facilities available for this project, including laboratories. Point out any procedures, situations, or materials that may be hazardous to personnel and the precautions to be exercised. List major items of instrumentation and those

major items of nonexpendable equipment needed to complete the work.

e. **Collaborative Arrangements.**—If the proposed project requires collaboration with other research organizations, describe the collaboration and provide evidence to assure the reviewers that the organizations involved agree. If separate written assurances are to be included, they should be placed after the References to the Project Description. Indicate specifically whether or not such collaborative arrangements might have the potential for any conflict of interest. Projects involving collaboration should indicate which organization is to receive the grant since only one submitting organization can be the recipient of a grant for each proposal. Subcontract arrangements of research work should be indicated under I of the Budget (Appendix IV).

6. References to Project Description. These references should follow an accepted journal format.

7. **Vitae and Publications List(s)** of PI(s). Vitae of the principal investigator, senior associates, and other professional personnel should be provided to assist reviewers in evaluating the competence and experience of the project staff. This section should include curricula vitae of all key persons who will work on the project, whether or not Federal funds are sought for their support. Provide for each person a chronological list of the most representative publications during the preceding 5 years including those in press. List the authors in the same order as they appear on the paper, the full title, and the complete reference as these usually appear in journals.

8. **Budget.** A detailed budget is required for each year of the proposed project. The format shown in Appendix IV must be used. Funds may be requested under any of the categories listed so long as the item is necessary to conduct the research. Section 2(b) of Public Law 89-106, as amended by Section 1414 of Public Law 95-113, states that these competitive grants shall be awarded without regard to matching funds by the recipient(s) of such grants. Instructions follow for the items to be inserted in the format illustrated in Appendix IV. Use a separate page for each year and a summary page for the total project budget. Justifications must be included. Use separate pages following the budget.

a. **Salaries and Wages.**—Salaries of the principal investigator and other personnel associated directly with the research should constitute appropriate direct costs in proportion to their effort devoted to the research. Charges by academic institutions for work

performed by faculty members during the summer months or other periods outside the base salary period are to be at a monthly rate not in excess of that which would be applicable under the base salary and to other provisions of section J.6 to the cost principles for educational institutions (Office of Management and Budget Circular, OMB A-21). Grant funds may not be used to augment the total salary or rate of salary of project personnel or to reimburse them for consulting or other time in addition to a regular full-time salary covering the same general period of employment.

The submitting organization may request that senior personnel salary data not be released to persons outside the government. In this case, the item for senior personnel salaries in the formal proposal may be expressed as a single figure and the work-months represented by that amount omitted. If this option is exercised, however, senior personnel salaries and man-months must be itemized in a separate statement, two copies of which should accompany the proposal. This statement must include all of the information requested in Appendix IV for each person involved. The detailed information will not be forwarded to reviewers and will be held privileged to the extent permitted by law.

For research associates and other professional personnel, each position must be listed, with the number of full-time equivalent work-months and rate of pay (hourly, monthly or annually) indicated. For other personnel (graduate students, technical, clerical, etc.) only the total number of persons and total amount of salaries per year in each category are required. Salaries requested must be consistent with the regular practices of the institution.

**b. Fringe Benefits.**—If the usual accounting practices of the performing organization provide that the organizational contributions to employee "benefits" (social security, retirement, ect.) be treated as direct costs, grant funds may be requested to defray such expenses as a direct cost.

**c. Total Salaries and Benefits.**

**d. Nonexpendable Equipment.**—Nonexpendable equipment is defined as an item of property which has an acquisition cost of \$500 or more per unit, an expected service life of 2 years or more, and does not lose its identity when joined or made a part of another piece of equipment. Organizations performing research with the support of a SEA grant are expected to have appropriate facilities, suitably furnished and equipped. Only under very unusual circumstances may grant funds be

requested for office equipment and furnishings, air conditioning, automatic data processing equipment (ADPE), or other "general purpose" equipment which is usable for other than research purposes. This type of equipment requires special justification and arrangement with CRGO.

Items of needed scientific equipment or instrumentation should be individually listed by description and estimated cost and should be adequately justified. Allowable items ordinarily will be limited to scientific equipment and apparatus which is not already available for the conduct of the work. If purchase or lease of expensive, special-purpose equipment having a unit acquisition cost exceeding \$10,000 is planned, the proposal must contain a certification that the equipment (a) is essential and not reasonably available or accessible to the proposed project, and (b) will be subject to reasonable inventory controls, maintenance procedures, and organizational policies designed to enhance multiple or shared use on other projects if such use will not interfere with the project for which the equipment is being acquired. Title to any nonexpendable equipment authorized to be procured under a grant will be determined prior to the award of a grant.

**e. Materials and Supplies.**—The types of expendable materials and supplies required should be indicated in general terms with estimated costs. Where substantial funds are requested, there should be a more detailed breakdown.

**f. Travel.**—The type and extent of travel and its relationship to the research should be briefly specified. Funds may be requested for field work or for travel to scientific meetings.

Travel in Canada, Puerto Rico, the United States or its possessions is considered domestic travel. All other travel is considered foreign. If foreign travel is planned in connection with the research, the proposal should include relevant information (including countries to be visited) and justification. Travel and subsistence should be in accordance with organization policy.

Irrespective of the organization policy, allowances for air fare will not normally exceed round trip jet economy air accommodations. Persons traveling under Federal grants must travel by U.S. flag carriers, if available, unless:

1. The traveler, while enroute has to wait 6 hours or more and no U.S. carrier is available during this period, and
2. The flight by a U.S. carrier takes 12 or more hours longer than a foreign carrier.

Air freight must also be under U.S. flag carriers.

**g. Publication costs.**—Costs of preparing and publishing the results of research conducted under the grant, including cost of reports, reprints, page charges or other journal costs, and necessary illustrations may be included.

**h. Computer (ADPE) Costs.**—The cost of computer services, including computer based retrieval of scientific and technical information may be requested. A justification based on the established computer service rates at the proposing institution should be provided. Reasonable costs of leasing automatic data processing equipment may be requested, if justified.

**i. All Other Direct Costs.**—Other anticipated direct costs not included above should be itemized. Examples are: space rental at research establishments away from the performing organization, minor alterations, and service charges. Reference books and periodicals may be charged to the grant only if they are related specifically to the research project. Proposed subawards should be disclosed in the proposal so that the grant instrument may contain prior approval, if appropriate. None of the research effort under a SEA grant may be contracted or transferred to another organization without prior CRGO approval.

Consultant services should be included in this section. Grantees normally are expected to utilize the service of their own staff to the maximum extent in managing and performing the activities supported by grants. Where it is necessary for a grantee to contract for the services of persons who are not its officials or employees, it is expected to do so in accordance with written organizational standards which provide for consideration of the factors outlined in the applicable Federal cost principles.

If the need for consultant services is anticipated, the proposal narrative should provide appropriate rationale and the Proposal Budget should estimate the amount of funds which may be required for this purpose. To the extent possible, consultant rates should show separate amounts for actual services and each of the components of the rate. Payments to individuals for consultant services shall not exceed the daily equivalent of the then current maximum rate paid to a GS-18 Federal employee (exclusive of indirect cost, travel, per diem, clerical services, vacation, fringe benefits, and supplies.)

**j. Total Direct Costs.**

**k. Indirect Costs.**—The indirect cost rate(s) negotiated by the grantee organization with the cognizant Federal

negotiating agency must be used in computing indirect costs for a research proposal. Determination of the appropriate indirect cost rate(s) is dependent upon a combination of factors including but not limited to physical location of the work. The proposed official responsible for Federal business relations should review this part of the proposal to see that it properly describes any particular factors which may have a bearing upon the indirect cost rate(s) applicable to the project. Normally, the rate in effect on the date the proposal is recommended for award by the CRGO Program Manager will be used.

If an organization has no established indirect cost rate, it should consult the Grants Administrative Management Office, who will establish liaison with the cognizant Federal negotiating agency for developing an acceptable indirect cost rate for the grantee.

1. *Total Direct and Indirect Costs (j. plus k.)*

m. *Less Residual Funds.*—Unused and uncommitted funds remaining at expiration of current CRGO grant.

n. *Total Amount of this Request.*

9. *Current and Pending Support* (Appendix V). The proposal must list all current public or private research support, in addition to the proposed project, to which the principal investigator and other senior personnel have committed a portion of their time, whether or not salary for the person involved is included in the budgets of the various projects. The proposal must also provide analogous information for all proposed research which is being considered by, or which will be submitted in the near future to, other possible sponsors including other USDA programs. Use the format of Appendix V.

If the project submitted for support has previously been funded from a source other than USDA, the items of information requested in the foregoing paragraph should be furnished for the immediately preceding funding period. This information will help the USDA analyze shifts in research support. Concurrent submission of a proposal to other organizations will not prejudice its review by CRGO.

10. *Additions to Project Description.* Each project description is expected by the members of review committees and the staff to be complete in itself. Distribution of additional material, other than for the records, is limited to the principal reviewers. In those instances where additional material is necessary (as for example: photographs which do not reproduce well, and reprints or other especially pertinent material which are

not suitable for inclusion in the proposal), 6 copies or sets, identified by title of the research project and name of the principal investigator, should accompany the proposal.

### III. Proposal Review and Evaluation

A. *Proposal Review.*—Research proposals received by CRGO will be acknowledged and assigned to the appropriate program for scientific evaluation.

All proposals will be carefully reviewed by a scientist serving as a CRGO Program Manager and by additional scientists who are experts in the particular field represented by the proposal. Program Managers will also obtain comments from assembled peer panels of scientists before recommending proposals for funding.

B. *Criteria for Selection of Projects.*—The following criteria or factors are considered in the evaluation of research proposals:

1. The scientific merit of the proposal, including the suitability and feasibility of the approaches and methodology.

2. The probability that the research will contribute to important discoveries or significant breakthroughs in food production or human nutrition, in relation to the mission of this program.

3. The qualifications of the principal investigator and other senior personnel, such as training, demonstrated awareness of previous and alternative approaches to the problem, and performance record and/or potential for future accomplishment.

4. The probable adequacy of available or obtainable facilities, equipment, instrumentation, and technical support.

C. *Revisions to Proposals During Review Process.*—Prior to recommending whether or not SEA should support a particular project, the Program Manager may engage in discussions with the proposing Principal Investigator. Should such discussions result in proposed changes which exceed 10 percent of the proposed grant amount or \$10,000, whichever is less, a revised proposal budget using the format shown in Appendix IV signed by both the proposing Principal Investigator and by the authorized organizational representative, must be submitted in an original and two copies to the cognizant CRGO Program Manager for incorporation into the proposal file.

Should such discussions result in changes in the basic objectives or scope of the project as originally proposed, an appropriate proposal modification, signed and endorsed as above, must be submitted to the CRGO Program Manager.

D. *Grant Awards.*—The institutions submitting proposals judged most meritorious under the criteria in III B above will be awarded grants for periods not to exceed five years, within the limitations of available funds.

### Appendix I

*Research Proposal Submitted to Competitive Research Grants Office; USDA/SEA*

For Consideration by \_\_\_\_\_

(Name of program; e.g., photosynthesis)

Title \_\_\_\_\_

(80 characters or less including spaces and punctuation, see instructions)

Proposed amount \_\_\_\_\_

Proposed effective date \_\_\_\_\_

Proposed duration months \_\_\_\_\_

Principal investigator (PI) name \_\_\_\_\_

Submitting institution \_\_\_\_\_

Address of principal investigator: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name co-principal investigator \_\_\_\_\_

Address of submitting institution: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name co-principal investigator \_\_\_\_\_

If supplement, or renewal give previous

CRGO Grant No. \_\_\_\_\_

Make grant to \_\_\_\_\_

(Legal name of institution or organization to

which grant should be made)

Internal Revenue Service Number \_\_\_\_\_;

Congressional District No. \_\_\_\_\_

Endorsements:

Principal investigator—

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone No. \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Authorized organizational representative—

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone No. \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Other, if required by submitting organization:

Name \_\_\_\_\_

Title \_\_\_\_\_

Phone No. \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Proposal Source Document

Principal investigator(s) (PI) names.—First,

middle, and last

PI No. 1 \_\_\_\_\_

PI No. 2 \_\_\_\_\_

PI No. 3 \_\_\_\_\_

Proposal No. (CRGO use) \_\_\_\_\_

Program (CRGO use) \_\_\_\_\_

PI No. 1 \_\_\_\_\_

City, State 2-letter abbr., and ZIP code \_\_\_\_\_

Department or street address (35 characters)

PI No. 1 \_\_\_\_\_

Phone and area code; and duration of

proposal in months \_\_\_\_\_

Total requested (direct & indirect); and institute or subdivision of performing organization (35 characters)  
 PI No. 1 \_\_\_\_\_  
 Name of performing organization (35 characters)

Authorized Organizational Representative (CRGO use) \_\_\_\_\_

First name, middle name, and last name  
 Phone and area code \_\_\_\_\_

Department of organizational unit (35 characters)

City, State (2-letter abbr.), and ZIP code. (CRGO use) \_\_\_\_\_

Date received (CRGO use) \_\_\_\_\_  
 Grantee organization (35 characters) \_\_\_\_\_

Title of proposal (maximum 80 characters).  
 Program Code (information to be supplied by principal investigator.)

A. Is this proposal a renewal (request to support additional research objective) of an existing SEA grant or a new proposal to the USDA Competitive Research Grants Office?  
 1.—new; 2.—renewal.

B. In which area of the competitive grants program do you want this proposal considered? Select one program *only*. (CRGO may direct it to another area if appropriate.)  
 1.—Biological Stress on Plants.  
 2.—Genetic Mechanisms for Crop Improvement.  
 3.—Nitrogen Fixation.  
 4.—Photosynthesis.  
 5.—Human Requirements for Nutrients.

*Proposal Code*

A. Which of the following best describes the performing organization of the first principal investigator? Check one choice *only*.  
 1.—USDA/SEA Laboratory.  
 2.—Other Federal Research Laboratory.  
 3.—State Agricultural Experiment Station (SAES).  
 4.—Land Grant University, 1862.  
 5.—Land Grant University, 1890 or Tuskegee Institute.

- 6.—Public University or College (Non-land grant).
  - 7.—Private University or College.
  - 8.—Private Profitmaking Organization.
  - 9.—Private Non-Profit Organization.
  - 10.—State or Local Organization.
- B. Has the first principal investigator completed the most advanced degree within the last 5 years?  
 1.—yes; 2.—no.  
 C. Will the work in this proposal deal with recombinant DNA or with human subjects?  
 1.—neither; 2.—DNA; and 3.—human subjects.  
 D. Congressional District of the grantee organization \_\_\_\_\_

*upport Code*

- A. Will this proposal be sent to another granting agency? If so, indicate.  
 1.—None.  
 2.—Other UDA units.  
 3.—NSF.  
 4.—NIH.  
 5.—DOE.  
 6.—Other (describe).

*Special Considerations*

Check appropriate statements. Supply additional information when necessary.  
 —"This project does not involve human subjects."  
 —"This project involves human subjects. It was approved by the Institutional Review Board on (date) \_\_\_\_\_, (is scheduled for review by the Institutional Review Board on (date) \_\_\_\_\_)." See DHEW regulations regarding the use of human subjects, appearing in Title 45, Code of Federal Regulations, Part 46, Subtitle A.  
 —"This project does not involve recombinant DNA research."  
 —"This project involves recombinant DNA research. It was approved by the institutional Committee on (date) \_\_\_\_\_, (Supply appropriate documents as required by "NIH Guide for Grants and Contracts," Vol. 6, No. 19, October 17, 1977, or subsequent revisions thereto)."

Appendix IV.—Budget Duration proposed — Mo.

Organization and address:  
 Principal investigator(s):

	CRGO funded work months			Funds requested by proposer	Funds granted by CRGO if different (CRGO use only)
	Cal.	Acad.	Summer		
<b>A. Salaries and wages:</b>					
1. No. of senior personnel:					
a.—(Co)—PI(s) .....				\$ .....	\$ .....
b.—Senior associates .....				\$ .....	\$ .....
2. Other personnel (nonfaculty):					
a.—Res. assoc.-postdoc .....				\$ .....	\$ .....
b.—Other professionals .....				\$ .....	\$ .....
c.—Graduate students .....				\$ .....	\$ .....
d.—Pre-baccalaureate students .....				\$ .....	\$ .....
e.—Secretarial-clerical .....				\$ .....	\$ .....
f.—Technical, shop, and other .....				\$ .....	\$ .....
Total salaries and wages .....				\$ .....	\$ .....
<b>B. Fringe Benefits (if charged as Direct Costs) .....</b>					
				\$ .....	\$ .....
<b>C. Total salaries, wages, and fringe benefits (A+B) .....</b>					
				\$ .....	\$ .....

Appendix IV.—Budget Duration proposed — Mo.—Continued

	CRGO funded work months			Funds requested by proposer	Funds granted by CRGO if different (CRGO use only)
	Cal.	Acad.	Summer		
D. Nonexpendable equipment (list items and dollar amounts for each item):					
Total nonexpendable equipment				\$	\$
E. Materials and supplies				\$	\$
Total materials and supplies				\$	\$
F. Travel 1. Domestic (including Canada)				\$	\$
2. Foreign (list destination and amount for each trip)				\$	\$
G. Publication costs/page charges				\$	\$
H. Computer (ADPE) costs				\$	\$
I. All other direct costs (list items and dollar amounts. Details of subcontracts, including work statements and budget, should be explained in full in proposal.)				\$	\$
J. Total direct costs (C through I)				\$	\$
K. Indirect costs (specify rate(s) and base(s) for on/off campus activity. Where both are involved, identify itemized costs included in on/off campus bases in remarks)				\$	\$
Total indirect costs				\$	\$
L. Total direct and indirect costs (J plus K)				\$	\$
M. Less residual (for further support of current project)				\$	\$
N. Total Amount of this Request (L Minus M)				\$	\$

Remarks: Use extra sheet if necessary:

NOTE: Signatures required only for revised budget.

This is Revision No.

Signature of principal investigator:

Date of signature:

Typed or printed name and title:

Signature of authorized organizational representative:

Date of signature:

Typed or printed name and title:

Appendix V.—Current and Pending Support

Name	Project agency	Amount <sup>1</sup>	Expiration date	Percent of effort committed	Title of project
PI:					
Current:					
a.					
b.					
c.					
Pending:					
a.					
b.					
c.					
Co-PI:					
Current:					
a.					
b.					
c.					
Pending:					
a.					
b.					
c.					
Other:					
Current:					
a.					
b.					
c.					
Pending:					
a.					
b.					
c.					
Comments (if any): List titles of research projects below. Use Additional sheets if necessary.					

<sup>1</sup> Indicate whether total or annual rate.

**Organizational Information and Assurances****A. Prospective Grantee Organizational Information**

The following information is to be submitted:

a. Organization Affiliations. Describe relationship of the organization to a parent organization or to subsidiaries or other affiliates. If the organization is a successor in interest to a predecessor or if changes in organization affiliation are anticipated, describe briefly.

b. Statement of Purposes and Powers. Enclose an official or published statement of the major purposes of the organization and certify as required in B, below, as to the powers which have been granted to it to enter into contractual relationships and/or to accept grants (e.g., articles of incorporation, terms of reference, or by-laws).

c. Key Officials:

1. Chief Executive;
2. Authorized Organizational Representative; and
3. Business Officer.

d. Affiliations of Key Officials. If the organization is other than a college or university or a State or local government, indicate whether or not each official listed in (c) above is affiliated with any Federal, State, or local agency or with any college or university. If so, describe such affiliation.

e. Whether or not the organization currently is a grantee or contractor of any component of the U.S. Department of Health, Education, and Welfare. (Note: This information will assist in implementing certain interagency procedures for which DHEW is the lead agency.)

f. If other than a college or university or a State or local government, also submit the following:

1. A certified statement of financial conditions (usually by Certified Public Accountant) covering at least the preceding 2 years; and
2. Bank or other references.

**B. Required Certification**

SEA requires that a prospective grantee organization submit a certification substantially as follows, signed by the Chief Executive Officer or authorized organizational representative:

a. I certify that (name of institution or organization) has legal authority to accept grants as evidenced by the attached (describe document), and the requisite policies, procedures, and personnel to ensure stewardship of Federal funds and management of Federally supported projects, specifically including standards for financial management, procurement, and property management, which meet those described in Attachments F, N, and O to OMB Circular A-110. (Note: In the event this is not the case, list exceptions and provide a realistic estimate of when such standards might be met.)

b. Each proposal to the SEA Grants Administrative Management Office will be consistent with the policies and goals of proposed grantee and will be submitted in accordance with its procedures and pursuant to appropriate authority.

c. In the event that a grant is awarded as a result of any such proposal, I agree that proposed grantee organization will:

1. Make available the necessary facilities, equipment, services, and personnel to conduct the project substantially as outlined in the proposal or such modifications thereof as may be mutually agreed;
2. Conduct such project oversight as may be appropriate, manage the Federal funding with probity and prudence, and comply with all the terms and conditions of the grant; and
3. Comply with all applicable laws and regulations.

**Appendix VI**

*Not Required if Previously Submitted to CRGO—Assurance of Compliance With the Department of Agriculture Regulations Under Title VI of the Civil Rights Act of 1964 (as Amended)*

Legal name of proposed grantee— (hereinafter called the "Applicant") hereby agrees that it will comply with Title VI of the Civil Rights Act of 1964, as amended, and all requirements imposed by or pursuant to the Regulations of the Department of Agriculture, 7 CFR Part 15, Subpart A, issued pursuant thereto, to the end that, in accordance with Title VI of that Act and the regulations, no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant receives Federal financial assistance from the Department of Agriculture; and hereby gives assurance that it will immediately take any measures necessary to effectuate this agreement.

This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Applicant by the Department, including installment payments after such date on account of applications for Federal financial assistance which were approved before such date. The Applicant recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, and the person or persons whose signatures appear below are authorized to sign this assurance on behalf of the Applicant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Authorized Organizational Representative

\_\_\_\_\_  
(Grantee's Mailing Address)

[FR Doc. 79-36708 Filed 11-28-79; 8:45 am]

BILLING CODE 3410-22-M

# Federal Register

---

Thursday  
November 29, 1979

---

Part X

## Department of the Interior

---

Bureau of Land Management

---

Outer Continental Shelf Joint Federal/  
State Beaufort Sea OCS Lease Sale BF;  
Acreage Corrections

**DEPARTMENT OF THE INTERIOR****Bureau of Land Management****Outer Continental Shelf Joint Federal/  
State Beaufort Sea OCS Lease Sale  
BF; Acreage Corrections**

On November 7, 1979, at 44 FR 64751, announcement was published for Oil and Gas Lease Sale BF in the Beaufort Sea. The sale is to take place December 11, 1979, in Fairbanks, Alaska.

Both the Department of the Interior and the State of Alaska have reviewed the Universal Transverse Mercator coordinates for the sale area and have verified them to be correct. The Federal/State Beaufort Sea Oil and Gas Lease Sale Leasing and Nomination Map, dated January 30, 1979, and the Supplemental Official OCS Block Diagrams which constitute the basis for description of each tract (leasing unit) are correct as referenced in the November 7, 1979, publication of the sale notice. The tract descriptions are, therefore, correct.

However, due to a programming error, the computed acreage figures for several tracts formed by the arcs delineating the jurisdictional status were incorrectly calculated. Certain acreage figures have been revised and these revisions are republished, for informational purposes, as follows:

**BILLING CODE 4310-84-M**

CORRECTED HECTARES AND ACRES FOR  
CERTAIN FEDERALLY MANAGED TRACTS  
(Revised November 26, 1979)

Tract	Block	Description	Block Hectares	Total Tract (Leasing Unit) Hectares	Total Tract (Leasing Unit) Acres
BF-6	476	Federal Portion	1012.52		
	477	" "	906.43	1918.95	4741.81
BF-22	755	" "	98.15		
	756	" "	554.32	652.47	1612.28
BF-25	516	Disputed Portion	2076.98		
	560	" "	44.65	2121.63	5242.64
BF-26	517	" "	560.49		
	561(NW corner)	" "	114.81	675.30	1668.70
BF-27	474(East side)	" "	60.67		
	475	" "	777.22		
	476	" "	890.95		
	477	" "	35.55		
	519	" "	36.00		
	520	" "	182.89	1983.28	4900.77
	710	" "	85.49		
BF-33	711	" "	70.47		
	755	" "	310.90		
	756	" "	70.78	537.64	1328.53
BF-34	561(SE corner)	" "	88.36		
	562	" "	47.87		
	605	" "	32.45		
	606	" "	679.32		
BF-35	607	" "	488.61	1336.61	3302.82
	564	" "	260.41		
	608	" "	1814.17		
	652	" "	13.41	2087.99	5159.52

CORRECTED HECTARES AND ACRES FOR  
CERTAIN FEDERALLY MANAGED TRACTS  
(Revised November 26, 1979)

Tract	Block	Description	Block Hectares	Total Tract (Leasing Unit) Hectares	Total Tract (Leasing Unit) Acres
BF-36	609	Disputed Portion	1240.62		
	653	" "	474.59	1715.21	4238.36
BF-37	610	" "	23.83		
	654	" "	1273.68		
	698	" "	24.52	1322.03	3266.79
BF-38	655	" "	1409.65		
	656	" "	133.44	1543.09	3813.04
BF-42	745	" "	1687.02		
	746	" "	1.29	1688.31	4171.89
BF-43	788	" "	162.64		
	789	" "	546.48	709.12	1752.27

CORRECTED ACRES FOR CERTAIN  
STATE MANAGED TRACTS  
(Revised November 26, 1979)

Tract	Block	Description	Block Acres	Total Tract (Leasing Unit) Acres
BF-46	470	State Portion	1705.89	
	514	" "	2686.94	4392.82
BF-49	476	" "	989.73	
	477	" "	3365.61	
	478	" "	1224.77	5580.11
BF-50	517	" "	4308.29	4308.29
BF-56	514	" "	172.33	
	515	" "	1423.32	
	558	" "	198.23	
	559	" "	1639.04	3432.92
BF-57	516	" "	560.98	
	560	" "	4740.40	5301.38
BF-58	561	" "	5191.24	5191.24
BF-66	605	" "	3601.10	3601.10
BF-67	606	" "	1866.38	1866.38
BF-68	606	" "	470.39	
	607	" "	1696.05	
	608	" "	105.59	2272.03
BF-69	608	" "	212.16	
	609	" "	2481.79	
	610	" "	1101.22	3795.18
BF-70	609	Dinkum Disputed	145.87	
	610	Dinkum Disputed	4533.18	
	566	Dinkum Disputed	633.50	5312.55
BF-71	611	Dinkum Disputed	4758.74	
	612	Dinkum Disputed	76.95	4835.69
BF-72	612	State Portion	5616.34	5616.34
BF-75	607	" "	1698.62	
	608	" "	892.64	
	651	" "	722.51	
	652	" "	2332.44	5646.21

CORRECTED ACRES FOR CERTAIN  
STATE MANAGED TRACTS  
(Revised November 26, 1979)

Tract	Block	Description	Block Acres	Total Tract (Leasing Unit) Acres
BF-76	653	" "	2378.73	
	654	" "	1107.37	
	697	" "	212.34	
	698	" "	601.30	4299.74
BF-77	611	" "	934.55	
	655	" "	697.92	
	656	" "	1423.32	3055.79
BF-89	745	" "	1396.07	
	746	" "	4266.78	5662.85
BF-98	743	" "	1078.02	
	744	" "	838.20	
	787	" "	315.11	
	788	" "	3255.75	5487.08
BF-99	789	" "	3376.14	
	745	" "	128.52	3504.66
BF-103	793	" "	3465.81	
	836	" "	2267.41	5733.22
BF-104	793	" "	2134.98	
	836	" "	1578.60	
	837	" "	1043.60	
	880	" "	772.74	5529.92
BF-107	794	" "	4055.05	
	838	" "	674.00	4729.05
BF-112	755	" "	4682.50	4682.50
BF-116	654	Dinkum Disputed	1438.59	
	655	Dinkum Disputed	1512.06	2950.65

Dated: November 23, 1979.

State of Alaska.

**Geoffrey Haynes,**

*Commissioner, Department of Natural Resources.*

United States.

**Ed Hastey,**

*Associate Director, Bureau of Land Management.*

Approved.

Dated: November 26, 1979.

**James A. Joseph,**

*Acting Secretary of the Interior.*

[FR Doc. 79-36764 Filed 11-28-79; 8:45 am]

BILLING CODE 4310-84-M

# Reader Aids

Federal Register

Vol. 44, No. 231

Thursday, November 29, 1979

## INFORMATION AND ASSISTANCE

Questions and requests for specific information may be directed to the following numbers. General inquiries may be made by dialing 202-523-5240.

### Federal Register, Daily Issue:

- 202-783-3238 Subscription orders (GPO)
- 202-275-3054 Subscription problems (GPO)
- "Dial-a-Reg" (recorded summary of highlighted documents appearing in next day's issue):
- Washington, D.C.
- Chicago, Ill.
- Los Angeles, Calif.
- 202-523-5022 Scheduling of documents for publication
- 312-663-0884 Chicago, Ill.
- 213-688-6694 Los Angeles, Calif.
- 202-523-3187 Scheduling of documents for publication
- 523-5240 Photo copies of documents appearing in the Federal Register
- 523-5237 Corrections
- 523-5215 Public Inspection Desk
- 523-5227 Finding Aids
- 523-5235 Public Briefings: "How To Use the Federal Register."

### Code of Federal Regulations (CFR):

- 523-3419
- 523-3517
- 523-5227 Finding Aids

### Presidential Documents:

- 523-5233 Executive Orders and Proclamations
- 523-5235 Public Papers of the Presidents, and Weekly Compilation of Presidential Documents

### Public Laws:

- 523-5266 Public Law Numbers and Dates, Slip Laws, U.S. Statutes at Large, and Index
- 5282
- 275-3030 Slip Law Orders (GPO)

### Other Publications and Services:

- 523-5239 TTY for the Deaf
- 523-5230 U.S. Government Manual
- 523-3408 Automation
- 523-4534 Special Projects
- 523-3517 Privacy Act Compilation

## FEDERAL REGISTER PAGES AND DATES, NOVEMBER

62879-63076.....	1
63077-63508.....	2
63509-64058.....	5
64059-64396.....	6
64397-64780.....	7
64781-65024.....	8
65025-65378.....	9
65379-65580.....	13
65581-65728.....	14
65729-65958.....	15
65959-66174.....	16
66175-66562.....	19
66563-66778.....	20
66779-67070.....	21
67071-67342.....	23
67343-67618.....	26
67619-67944.....	27
67945-68430.....	28
68431-68794.....	29

## CFR PARTS AFFECTED DURING NOVEMBER

At the end of each month, the Office of the Federal Register publishes separately a list of CFR Sections Affected (LSA), which lists parts and sections affected by documents published since the revision date of each title.

### 1 CFR

485..... 64063

### 3 CFR

#### Executive Orders:

12170..... 65729  
12171..... 66565  
12172..... 67947

#### Administrative Orders:

#### Presidential Determinations:

No. 80-1 of  
October 15, 1979..... 63077  
No. 80-2 of  
October 23, 1979..... 64059  
No. 80-3 of  
October 23, 1979..... 64061  
No. 80-4 of  
October 24, 1979..... 66175  
No. 80-5 of  
November 13,  
1979..... 67071  
No. 80-6 of  
November 13,  
1979..... 67073

#### Proclamations:

3279 (Amended by  
Proc. 4702)..... 65581  
4698..... 63509  
4699..... 63511  
4700..... 63513  
4701..... 64781  
4702..... 65581  
4703..... 66563  
4704..... 67945

### 5 CFR

110..... 67624  
177..... 65025  
213..... 63079, 64064-64067,  
65025-65031, 65959-65961,  
66567-66571, 67619-67624  
293..... 65031  
297..... 65031  
302..... 66573  
315..... 63080, 66574  
338..... 66571  
351..... 65046  
733..... 63080  
1201..... 65048  
1206..... 65048  
1312..... 64783

#### Proposed Rules:

531..... 65077

### 6 CFR

705..... 64276, 66534, 67060,  
67949  
706..... 64284, 66534, 67060,  
67949  
707..... 66534, 67949

### 7 CFR

2..... 66177  
272..... 64386, 66574  
273..... 64067  
401..... 64786,  
67343, 67349, 67355, 67361,  
67954, 68431, 68435  
423..... 67343  
424..... 67349  
425..... 67954  
426..... 68431  
427..... 62879  
428..... 67355  
429..... 62879  
431..... 64786, 66178  
432..... 67361  
433..... 68435  
722..... 65962  
724..... 63081  
905..... 65962, 66779  
907..... 64838, 65963, 66780,  
68478  
910..... 63081, 65049, 65963,  
67075  
959..... 63082, 65379  
971..... 65964, 66178  
981..... 67075  
989..... 64397, 66574  
1421..... 67077  
1423..... 67080  
1424..... 67081  
1427..... 67083, 67084  
1434..... 67081  
1464..... 65965-65967  
1701..... 64069  
1942..... 62880  
1962..... 64794  
1980..... 64797  
2024..... 65968  
3100..... 66179

#### Proposed Rules:

Subtitle A..... 65862  
Ch. I..... 65862  
Ch. II..... 65862  
Ch. III..... 65862  
Ch. IV..... 65862  
Ch. V..... 65862  
Ch. VI..... 65862  
Ch. VII..... 65862  
Ch. IX..... 65862, 67990  
Ch. X..... 65862  
Ch. XI..... 65862  
Ch. XII..... 65862  
Ch. XIV..... 65862  
Ch. XV..... 65862  
Ch. XVI..... 65862  
Ch. XVII..... 65862  
Ch. XVIII..... 65862  
Ch. XXI..... 65862  
Ch. XXIV..... 65862  
Ch. XXV..... 65862  
Ch. XXVI..... 65862

Ch. XXVII.....	65862	214.....	65726, 65727	264b.....	64399	145.....	66324
Ch. XXVIII.....	65862			265.....	64398	223.....	64429
Ch. XXIX.....	65862	<b>9 CFR</b>		329.....	66575	225.....	64429
210.....	63107	1.....	63488	335.....	67627	233.....	66835
225.....	66605	2.....	63488	541.....	67089	241.....	67140
235.....	63107	3.....	63488	545.....	67089	296.....	65599
271.....	63496, 65077	78.....	65969	720.....	65731	302.....	66835
272.....	63496, 65318	92.....	63082	<b>Proposed Rules:</b>			
273.....	63496, 65989	113.....	63083, 67087	210.....	67995	<b>15 CFR</b>	
274.....	65318	160.....	63488	211.....	62902, 62903	369.....	67374
276.....	65318	161.....	63488	561.....	64840	<b>Proposed Rules:</b>	
277.....	65318	316.....	67087	563.....	65599	503.....	65940
278.....	63496	325.....	67626	<b>13 CFR</b>		<b>16 CFR</b>	
318.....	85080	<b>Proposed Rules:</b>		101.....	64401	3.....	62887
906.....	67130	Ch. I.....	65862	121.....	67980	13.....	64803, 65735, 66576, 67643, 67644, 67981
910.....	64839	Ch. II.....	65862	130.....	67980	305.....	66466
959.....	65592	Ch. III.....	65862	540.....	67091	460.....	64402
971.....	67131	Ch. VI.....	65862	<b>14 CFR</b>		802.....	66781
982.....	63547	318.....	65403	13.....	63720	<b>Proposed Rules:</b>	
989.....	62901	381.....	65403	23.....	68738	13.....	63114, 63550, 64432, 64434, 67436
1001.....	65989	<b>10 CFR</b>		25.....	68738, 68745	433.....	65771, 68000
1002.....	65989	0.....	62880	37.....	68738, 68745	451.....	65599
1004.....	65989, 67427	2.....	65049, 67088	39.....	62881, 62882, 63519- 63521, 64797, 65387, 65732, 65733, 66188, 66189, 67101- 67103, 67369, 68443-68445	454.....	62911
1006.....	65989	20.....	63515	71.....	62883, 62884, 65388- 65391, 65734, 66190, 67104, 67106, 67370-67373, 68446- 68451	1700.....	67438
1007.....	65989	21.....	63515	73.....	67106, 67107, 68452	<b>17 CFR</b>	
1011.....	65989	50.....	66575	75.....	62884, 68453	1.....	65970
1012.....	65989	70.....	68184	91.....	62884	140.....	65735
1013.....	65989	71.....	63083	95.....	65391	145.....	65970
1030.....	65989	73.....	63515, 65969, 67089, 68184	97.....	62885, 66190, 68454	147.....	65970
1032.....	65989	150.....	68184	311.....	65583	200.....	64069, 65736
1033.....	65989	211.....	63515, 66183	322.....	65398	210.....	62888, 65738
1036.....	65989	212.....	65722, 66186	325.....	65399	230.....	64070
1040.....	65989	436.....	64776, 65700	385.....	64401	240.....	67107, 68456, 68764
1044.....	65989	450.....	63519, 64797	398.....	65583, 65584	249.....	65739
1046.....	65989	455.....	63519, 64797	399.....	65052	<b>Proposed Rules:</b>	
1049.....	65594, 65989	456.....	64602	<b>Proposed Rules:</b>		210.....	65774
1050.....	65989	465.....	66780	Ch. I.....	65104	229.....	67143
1062.....	65989	1023.....	64270	1.....	67136	230.....	67143, 67671
1064.....	65989	<b>Proposed Rules:</b>		23.....	62906	239.....	67143, 67671
1065.....	65989	Ch. II.....	63108, 64094, 65274	25.....	62906, 67137	240.....	66607, 67143
1068.....	65989	Ch. III.....	63108, 64094, 65274	27.....	67136	249.....	67143
1071.....	65989	Ch. X.....	63108, 64094, 65274	29.....	67136	250.....	62912
1073.....	65989	51.....	65598	33.....	67136	259.....	62912
1075.....	65989	205.....	67338	39.....	62907, 63547, 67139, 67435	270.....	66608, 66612, 67150, 67152
1076.....	65989	211.....	67602	43.....	66324, 67136	<b>18 CFR</b>	
1079.....	65989, 67132	212.....	67602	45.....	67136	2.....	65055, 67644
1094.....	65989	221.....	63109	61.....	65550, 67136	4.....	67644
1096.....	65989	435.....	68120	65.....	66324	16.....	67644
1097.....	65989	470.....	64839	71.....	62908, 63548, 63549, 64840-64842, 65403, 65768- 65770, 66204, 66205, 67140, 67436, 68479-68481	35.....	65740
1098.....	65989	<b>11 CFR</b>		73.....	65403, 65770, 68481	141.....	65741
1099.....	65989	107.....	63036	91.....	66324, 67136, 68759	154.....	65740
1102.....	65989	114.....	63036	97.....	62909	157.....	65055
1104.....	65989	9032.....	63756	107.....	63048, 64843	260.....	65741
1106.....	65989	9033.....	63756	108.....	63048, 64843	270.....	66577
1108.....	65989	9034.....	63756	121.....	63048, 64843, 65550, 66324, 67136	271.....	62889, 66783, 67108
1120.....	65989	9035.....	63756	123.....	66324	272.....	66192, 66786, 67655
1124.....	65989	<b>Proposed Rules:</b>		125.....	66324	273.....	66786
1125.....	65989	100.....	64773	127.....	67136	274.....	67108
1126.....	65989	110.....	64773	129.....	63048, 64843	275.....	66786
1128.....	65989	114.....	64773	133.....	67136	281.....	65585
1131.....	65989	9033.....	63753	135.....	62906, 63048, 64843, 66324, 67136	282.....	67982
1132.....	65989	<b>12 CFR</b>				284.....	66789
1133.....	64087, 65989	4.....	65379			292.....	63114, 65744
1134.....	65989	5.....	65380			<b>Proposed Rules:</b>	
1135.....	65989	27.....	63084			2.....	66613
1136.....	65989	28.....	65381			35.....	67154, 67158
1137.....	65989	206.....	67961			46.....	66205
1138.....	65989	215.....	67973			154.....	66613
1139.....	65989	225.....	64398, 65051, 65731			270.....	66613
1421.....	67134	262.....	64398				
1464.....	63107						
1924.....	65991						
1980.....	67134						
3100.....	65768						
<b>8 CFR</b>							
3.....	67960						

277.....	66208	201.....	64072	1910.....	64095, 66621	1212.....	66599
280.....	67166	203.....	64073	<b>30 CFR</b>		<b>Proposed Rules:</b>	
282.....	67170	205.....	64073, 64403	Ch. VII.....	67942	Ch. II.....	65862
284.....	67166	207.....	64073, 65580	788.....	66195	7.....	67441
292.....	67176	213.....	64073	872.....	67057	<b>37 CFR</b>	
<b>19 CFR</b>		220.....	64073	<b>Proposed Rules:</b>		<b>Proposed Rules:</b>	
<b>Proposed Rules:</b>		221.....	64073	Ch. I.....	65566	202.....	62913
4.....	64434, 66835	232.....	64073	Ch. VII.....	65601	<b>38 CFR</b>	
144.....	64434, 66835	234.....	64073	870.....	63737, 65407	<b>Proposed Rules</b>	
151.....	64434, 66835	235.....	64073	871.....	63737, 65407	3.....	68489
159.....	64434, 66835	236.....	64073	872.....	63737, 65407	8.....	65995
<b>20 CFR</b>		241.....	64073	873.....	63737, 65407	21.....	65083, 65996, 66623, 67179, 67181
416.....	64402	242.....	64073	874.....	63737, 65407	36.....	65997
675.....	64290, 64326	244.....	64073	875.....	63737, 65407	<b>39 CFR</b>	
684.....	64290	250.....	64073	876.....	63737, 65407	10.....	65986
688.....	64326	570.....	65950, 67656	877.....	63737, 65407	775.....	63524
901.....	68457	805.....	64204	878.....	63737, 65407	952.....	65399
<b>Proposed Rules:</b>		841.....	64405, 67656	879.....	63737, 65407	<b>40 CFR</b>	
Ch. I.....	65556	868.....	64196	880.....	63737, 65407	6.....	64174
Ch. IV.....	65556	880.....	65060	881.....	63737, 65407	51.....	65066, 65069
Ch. V.....	65556	882.....	65061, 65360	882.....	63737, 65407	52.....	63102, 65066, 67375
Ch. VI.....	65556	888.....	65924	883.....	63737, 65407	53.....	65066
Ch. VII.....	65556	3280.....	66194	884.....	63737, 65407	55.....	67986
208.....	62912	3282.....	68732	885.....	63737, 65407	58.....	65066, 65069
260.....	62912, 63096	4103.....	66587	886.....	63737, 65407	60.....	65066
416.....	66836	<b>Proposed Rules:</b>		887.....	63737, 65407	61.....	65399
614.....	65406	115.....	65775	888.....	63737, 65407	65.....	63102, 67658
<b>21 CFR</b>		203.....	65776	<b>31 CFR</b>		80.....	62897
73.....	65974	204.....	65776	535.....	65956, 65988, 66590, 66832, 67617	81.....	63102, 64078, 65751, 65986, 67380
431.....	67112	208.....	65081, 66846	<b>32 CFR</b>		87.....	64266
510.....	65975, 67113	402.....	65992	Ch. XXVIII.....	66591	116.....	65400, 66602
514.....	67112	571.....	65776	625.....	63099	117.....	65401, 66602
520.....	63096, 65975, 65976, 67113	881.....	67177	706.....	67114	141.....	68624
522.....	63097, 65975, 67113	883.....	65776	724.....	66901	162.....	63749
526.....	67113	886.....	64095	806b.....	66916	180.....	67115-67117
540.....	65976	888.....	67177	881.....	64075	205.....	67659
558.....	65976, 66581, 67113	3282.....	67440	2600.....	64077	227.....	65751
1002.....	65352, 67655	<b>25 CFR</b>		<b>Proposed Rules:</b>		256.....	66196
1040.....	65352, 67655	31a.....	67040	169.....	65601	409.....	64078
<b>Proposed Rules:</b>		31b.....	67040	169a.....	65601	418.....	64080
Ch. I.....	67673	31g.....	65008	169b.....	65601	424.....	64082
145.....	65080	32b.....	67040	1900.....	65780	434.....	64082
331.....	65992	256.....	65747	<b>32A CFR</b>		<b>Proposed Rules:</b>	
338.....	65992	700.....	65750	<b>Proposed Rules:</b>		Ch. I.....	63552, 65601, 65612
340.....	65992	<b>26 CFR</b>		601-662.....	66846	6.....	68776
353.....	63270	1.....	64405, 65061, 67657, 68458, 68463	<b>33 CFR</b>		51.....	65084, 67675
864.....	64095	5.....	63522	117.....	65750, 66195	52.....	63114, 64439, 65084, 65408, 65613, 65614, 65781, 65790, 65791, 66214, 67182, 67674, 67675
868.....	63292-63426, 65081	31.....	68465	124.....	63672	60.....	62914, 67934, 67938
880.....	65992	<b>Proposed Rules:</b>		126.....	63672	65.....	65410, 65411, 65615, 66624, 66849, 67183
1000.....	66616	1.....	65777, 67178	157.....	66502	81.....	65791, 66850
<b>22 CFR</b>		31.....	65777, 65995	160.....	62891	85.....	62915
506.....	63098	48.....	67441	161.....	63672	87.....	66850
<b>Proposed Rules:</b>		139.....	67441	164.....	63672, 66528	120.....	67442
51.....	65600	<b>28 CFR</b>		183.....	63523, 68466	180.....	66216, 66217
161.....	66838	<b>Proposed Rules:</b>		206.....	65977	230.....	63552
<b>23 CFR</b>		42.....	67179	207.....	67657	250.....	67445
650.....	67578	<b>29 CFR</b>		<b>Proposed Rules:</b>		257.....	65615
658.....	63680	1625.....	66791	82.....	64843	454.....	68710
770.....	66193, 68458	1627.....	66791	117.....	68488	713.....	64844, 67183
<b>Proposed Rules:</b>		<b>Proposed Rules:</b>		204.....	66213	761.....	68489
659.....	63682	Subtitle A.....	65556	<b>36 CFR</b>		774.....	67183
771.....	66213	Ch. II.....	65566	Ch. VI.....	64406	761.....	66851
<b>24 CFR</b>		Ch. IV.....	65566	51.....	62893	<b>41 CFR</b>	
Ch. II.....	67375	Ch. V.....	65566	60.....	64405	14-1.....	63529
Ch. XXV.....	66582	Ch. XVII.....	65566	219.....	65587		
50.....	67906	Ch. XXV.....	65566	222.....	64406		
200.....	67982	1440.....	65407	1202.....	64407, 65066		
		1601.....	65082				
		1615.....	68482				
		1904.....	65082				

14-7..... 63529  
 15-7..... 65587  
 105-54..... 65071  
 105-62..... 64805

**Proposed Rules:**

Ch. 4..... 65862  
 3-1..... 63115, 67183, 67185  
 3-7..... 63115, 67185  
 8-7..... 68491  
 8-18..... 68491  
 9-1..... 67330  
 9-3..... 67330  
 9-16..... 67330  
 9-50..... 67330  
 101-6..... 66852  
 101-39..... 65411

**42 CFR**

50..... 65072  
 405..... 67381, 68466

**Proposed Rules:**

4..... 66852  
 34..... 64095  
 59a..... 66852  
 63..... 66852  
 64..... 66852  
 72..... 66853  
 435..... 66855  
 436..... 66855

**43 CFR**

3100..... 64085

**Proposed Rules:**

3210..... 67598  
 3211..... 67598

**Public Land Orders:**

4520 [Revoked by  
 PLO 5685]..... 66196  
 5685..... 66196  
 5680 [Corrected by  
 5686]..... 66816  
 5686..... 66816  
 5687..... 67383

**44 CFR**

55..... 64082  
 64..... 63529, 64808, 65752  
 65..... 63530, 66602, 67126,  
 67129  
 67..... 63531-63534, 64421,  
 65074  
 205..... 64809

**Proposed Rules:**

67..... 63117-63120, 63553-  
 63557, 64096, 64444, 64451,  
 64460, 64466, 64472, 65093-  
 65104, 66857, 67186, 68000  
 205..... 63058

**45 CFR**

185a..... 67384  
 205..... 67421  
 1067..... 67423  
 2101..... 67050  
 2102..... 67050  
 2103..... 67050

**Proposed Rules:**

Ch. X..... 65412  
 86..... 66626  
 405..... 63120  
 1152..... 63120  
 1210..... 65999  
 1211..... 66003  
 1361..... 68564

1362..... 68564  
 1363..... 68564  
 1501..... 64097  
 1067..... 64815  
 1069..... 64836

**46 CFR**

30..... 66500  
 32..... 66500  
 34..... 66500  
 67..... 68468  
 401..... 64836  
 402..... 64836  
 502..... 62898  
 504..... 67660  
 505..... 67660

**Proposed Rules:**

1..... 64844  
 61..... 62915, 66218  
 254..... 65616  
 512..... 65417  
 514..... 65417

**47 CFR**

13..... 66816  
 15..... 66822  
 21..... 63105  
 22..... 63105  
 25..... 65753, 67663  
 31..... 65761  
 61..... 66823  
 68..... 66825  
 73..... 64408, 65763, 66816,  
 67664-67669  
 74..... 65763, 66816  
 83..... 64409, 66830  
 87..... 64409  
 90..... 67117, 67119  
 91..... 66830  
 95..... 67125

**Proposed Rules:**

2..... 67191  
 21..... 67191  
 31..... 64440  
 33..... 64440  
 42..... 64440  
 43..... 64440, 67192  
 61..... 67445  
 63..... 67445  
 64..... 63558  
 73..... 62917, 64441, 67680  
 81..... 66857  
 87..... 67191  
 90..... 64442, 67191  
 95..... 67191  
 97..... 64442

**49 CFR**

7..... 65765  
 178..... 66197  
 570..... 68469  
 571..... 65766, 68470  
 575..... 68475  
 601..... 65765  
 1008..... 66831  
 1033..... 62899, 63105, 64410,  
 65075, 65400, 65767, 67989  
 1034..... 65075  
 1047..... 65588  
 1064..... 65987  
 1201..... 65401, 67424  
 1240..... 65401  
 1241..... 65401

**Proposed Rules:**

Ch. X..... 64845, 65420

171..... 67476  
 172..... 65020, 66219  
 173..... 65020, 67476  
 192..... 65792, 68491, 68493  
 213..... 64844  
 385..... 67193  
 450..... 68495  
 451..... 68495  
 452..... 68495  
 453..... 68495  
 571..... 68501  
 662..... 66213  
 666..... 62918  
 1001..... 64846  
 1011..... 64846  
 1047..... 67476  
 1056..... 63121  
 1100..... 64846  
 1111..... 66626  
 1131..... 64846  
 1131a..... 64846  
 1301..... 63121, 64851

**50 CFR**

17..... 64246, 64247, 64250,  
 64730, 64736, 64738, 64741,  
 64744, 65002  
 32..... 63106, 67670  
 33..... 62899  
 285..... 62900  
 611..... 64410, 64421, 65590  
 672..... 64410, 64421

**Proposed Rules:**

Ch. VI..... 63558, 65616  
 17..... 63474, 67902  
 32..... 63496  
 216..... 67194  
 410..... 64097  
 611..... 66356  
 652..... 65372  
 661..... 64443  
 662..... 67194, 68501  
 675..... 66356  
 676..... 66859, 68001

## AGENCY PUBLICATION ON ASSIGNED DAYS OF THE WEEK

The following agencies have agreed to publish all documents on two assigned days of the week (Monday/Thursday or Tuesday/Friday).

This is a voluntary program. (See OFR NOTICE FR 32914, August 6, 1976.)

Monday	Tuesday	Wednesday	Thursday	Friday
DOT/SECRETARY*	USDA/ASCS		DOT/SECRETARY*	USDA/ASCS
DOT/COAST GUARD	USDA/APHIS		DOT/COAST GUARD	USDA/APHIS
DOT/FAA	USDA/FNS		DOT/FAA	USDA/FNS
DOT/FHWA	USDA/FSQS		DOT/FHWA	USDA/FSQS
DOT/FRA	USDA/REA		DOT/FRA	USDA/REA
DOT/NHTSA	MSPB/OPM		DOT/NHTSA	MSPB/OPM
DOT/RSPA	LABOR		DOT/RSPA	LABOR
DOT/SLSDC	HEW/FDA		DOT/SLSDC	HEW/FDA
DOT/UMTA			DOT/UMTA	
CSA			CSA	

Documents normally scheduled for publication on a day that will be a Federal holiday will be published the next work day following the holiday.

Comments on this program are still invited. Comments should be submitted to the Day-of-the-Week Program Coordinator, Office of the Federal Register, National Archives and Records Service, General Services Administration, Washington, D.C. 20408

\*NOTE: As of July 2, 1979, all agencies in the Department of Transportation, will publish on the Monday/Thursday schedule.

## REMINDERS

The items in this list were editorially compiled as an aid to Federal Register users. Inclusion or exclusion from this list has no legal significance. Since this list is intended as a reminder, it does not include effective dates that occur within 14 days of publication.

## Rules Going Into Effect Today

## INTERIOR DEPARTMENT

Fish and Wildlife Service—

- 62470 10-30-79 / Determination that *Kokia cookei* is an endangered species
- 62471 10-30-79 / Determination that *Sclerocactus mesae-verdae* is a threatened species
- 62468 10-30-79 / Determination that three Hawaiian plants are endangered species

## List of Public Laws

Last Listing November 26, 1979

This is a continuing listing of public bills from the current session of Congress which have become Federal laws. The text of laws is not published in the Federal Register but may be ordered in individual pamphlet form (referred to as "slip laws") from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (telephone 202-275-3030).

- S. 1319 / Pub. L. 96-125 "Military Construction Authorization Act, 1980". (Nov. 26, 1979; 93 Stat. 928) Price \$1.50.
- H.R. 4930 / Pub. L. 96-126 Making appropriations for the Department of the Interior and related agencies for the fiscal year ending September 30, 1980, and for other purposes. (Nov. 27, 1979; 93 Stat. 954) Price \$1.50.

## Public Papers of the Presidents of the United States

Annual volumes containing the public messages and statements, news conferences, and other selected papers released by the White House.

Volumes for the following years are now available:

### HERBERT HOOVER

1929 ..... \$13.30	1931 ..... \$14.00
1930 ..... \$16.60	1932-33 ..... \$17.25

### HARRY S. TRUMAN

1945 ..... \$11.75	1949 ..... \$11.80
1946 ..... \$10.80	1950 ..... \$13.85
1947 ..... \$11.15	1951 ..... \$12.65
1948 ..... \$15.95	1952-53 ..... \$18.45

### DWIGHT D. EISENHOWER

1953 ..... \$14.60	1957 ..... \$14.50
1954 ..... \$17.20	1958 ..... \$14.70
1955 ..... \$14.50	1959 ..... \$14.95
1956 ..... \$17.30	1960-61 ..... \$16.85

### JOHN F. KENNEDY

1961 ..... \$14.35	1962 ..... \$15.55
1963 ..... \$15.35	

### LYNDON B. JOHNSON

1963-64 (Book I) ..... \$15.00	1966 (Book II) ..... \$14.35
1963-64 (Book II) ..... \$15.25	1967 (Book I) ..... \$12.85
1965 (Book I) ..... \$12.25	1967 (Book II) ..... \$11.60
1965 (Book II) ..... \$12.35	1968-69 (Book I) ..... \$14.05
1966 (Book I) ..... \$13.30	1968-69 (Book II) ..... \$12.80

### RICHARD NIXON

1969 ..... \$17.15	1972 ..... \$18.55
1970 ..... \$18.30	1973 ..... \$16.50
1971 ..... \$18.85	1974 ..... \$12.30

### GERALD R. FORD

1974 ..... \$16.00	1975 (Book I) ..... \$13.50
1975 (Book II) ..... \$13.75	

### JIMMY CARTER

1977 (Book I) ..... \$16.00	1977 (Book II) ..... \$15.25
1978 (Book I) ..... \$18.00	

Published by Office of the Federal Register, National Archives and Records Service,  
General Services Administration

Order from Superintendent of Documents, U.S. Government Printing Office,  
Washington, D.C. 20402